OLD!

THE ESSENTIAL GUIDE TO CLASSIC GAMES

retro GAMER

AMSTRAD | COMMODORE | SEGA | NINTENDO | ATARI | SINCLAIR | NEO GEO | SONY | COIN-OP | MOBILE

PC ENGINE MINI REVIEWED

DOES M2'S MEGA DRIVE MINI FOLLOW-UP HIT THE SAME HEIGHTS?

FUTURE CLASSIC ALIEN ISOLATION

WHY YOU'LL BE PLAYING THIS TERRIFYING FIRST-PERSON SCI-FI HORROR FOR YEARS TO COME

THE HISTORY OF BENEATH A STEEL SKY

CHARLES CECIL ON THE ORIGINS AND FUTURE OF HIS CLASSIC DYSTOPIAN SERIES

TORU IWATANI BREAKS DOWN EVERY ASPECT OF HIS ICONIC CREATION

PAC-MAN

40TH ANNIVERSARY

RETURN OF DOUBLE DRAGON

WE BUST OPEN THE SUPERB SNES SUBURBAN BRAWLER

QUESTPROBE TRILOGY

SCOTT ADAMS REVISITS HIS POPULAR MARVEL ADVENTURES

FUTURE

LOAD 207

THE MAKING OF SHADOW MAN

THE STORY BEHIND ACCLAIM'S GRAPHIC NOVEL ADAPTATION

ULTIMATE GUIDE SAKURA WARS

DISCOVER THIS SATURN STEAMPUNK STRATEGY GEM

IKORIA™
LAIR OF BEHEMOTHS

MAGIC THE GATHERING

UNLEASH YOUR MONSTERS!

AVAILABLE ON

MAGIC THE GATHERING ARENA

© 1993-2020 WIZARDS OF THE COAST LLC, A SUBSIDIARY OF HASBRO, INC. ALL RIGHTS RESERVED.

THE RETROBATES

WHAT GAME WOULD YOU RECOMMEND TO PLAY DURING LOCKDOWN?

DARRAN JONES

No, I'm not going to say *Strider*, but I will recommend *Fire Emblem* on the GBA. It's pricey, but has a great story, deep strategy and won't hog the family TV.

Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine, all under the same roof!

Currently playing:
Magic: The Gathering Arena

Favourite game of all time:
Strider

DREW SLEEP

By the time you've read this, I would've re-subbed to *Final Fantasy XIV* and you should join me. There's lots of fun nods to all of the core games, *I* to *XV*, and the music is awesome. Moogle server, hop to it!

Expertise:
Hoovering and dusting my home while working… all the time

Currently Playing:
Final Fantasy XIV

Favourite game of all time:
Final Fantasy VIII

NICK THORPE

I usually play *Rez* in stressful times, as it's so abstract that it feels like a complete escape from the real world. Early arcade games would probably work, too.

Expertise:
Owning five Master Systems and a Mark III

Currently playing:
Disaster Report 4 Plus: Summer Memories

Favourite game of all time:
Sonic The Hedgehog

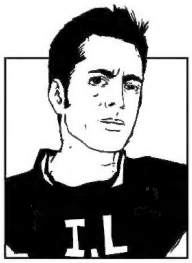
ANDY SALTER

TaleWorlds released the highly anticipated follow-up to *Mount & Blade: Warband* a month ago so I thought I'd give it a go. It turns out to be a massive time sink, as I'm now forgetting to eat and sleep as I hunt down bandits. I lasted about a day before adding mods haha!

Expertise:
Modding games, no 'vanilla' versions for me, thanks!

Currently playing:
Mount & Blade 2: Bannerlord

Favourite game of all time:
Rome: Total War



IAIN LEE

An ideal lockdown game has to be any *Doom* game. Mindless blasting has been helping me feel like I have some power during a time when I'm at my most powerless!

Expertise:
Buying overpriced stuff on eBay then never touching it

Currently playing:
Forza Horizon

Favourite game of all time:
Elite (BBC Model B)

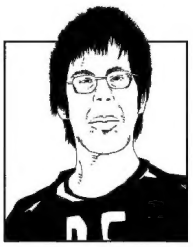
PAUL DRURY

If part of coping with lockdown is developing a rich inner world I would suggest playing Scott Adams' early text adventures, especially *The Count* and *Adventureland*. Let your imagination paint the pictures.

Expertise:
Barbie Horse Adventures series

Currently playing:
The Complex

Favourite game of all time:
Sheep In Space



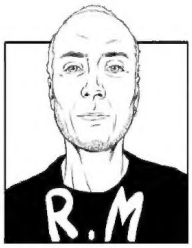
DAVID CROOKES

Deus Ex, just to see how life could be if it was blighted by economical inequality and a deadly pandemic.

Expertise:
Amstrad, Lynx, adventures, *Dizzy*, and PlayStation (but is it retro? Debate!)

Currently playing:
Prince Of Persia: The Sands of Time

Favourite game of all time:
Broken Sword



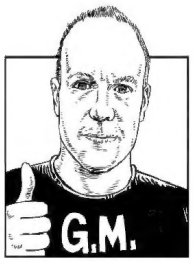
RORY MILNE

Donkey Kong Country. It's a serious challenge and a joyous experience, and its polished gameplay and inventive mechanics work equally well in both solo and co-op mode.

Expertise:
The game that I'm writing about at the time of writing

Currently playing:
Knight Tyme

Favourite game of all time:
Tempest



GRAEME MASON

A good lockdown game should be something that immerses you in another world, helping you forget about the current circumstances. So how about *Another World*?

Expertise:
Adjusting the tape azimuth with a screwdriver

Currently playing:
Rebelstar

Favourite game of all time:
Resident Evil 4

LOADING...

I hope you're all staying safe in these uncertain times. Working from home is now the norm for the **Retro Gamer** team and I'm sure we're not the only ones who have been adjusting to the change. While it's still unclear when things will get *back to normal* in the wider world, it's been a lot easier to deal with the challenges of making the magazine thanks to the sheer amount of lovely emails we've received about it (you can read them on page 94).

I'm confident that you're going to be equally pleased with this current issue, particularly as we're celebrating one of gaming's most iconic characters – Pac-Man. 40 years is a huge milestone for any videogame franchise, so we decided to go all out on this one, breaking down every aspect of what makes *Pac-Man* so great, with excellent insight from *Pac-Man*'s creator, Toru Iwatani. We've examined everything from the AI of *Pac-Man*'s ghosts, to its cultural impact and many sequels, and we have even managed to quiz Jerry Buckner about his hit song, *Pac-Man Fever*.

40th birthday celebrations aside, we've also found time to quiz Charles Cecil about the original *Beneath A Steel Sky* and what he has planned for the incoming sequel, Howie Rubin tells about his fascinating time working for Atari and Gottlieb, while Scott Adams revisits his *Questprobe* trilogy.

Stay safe, and enjoy the magazine!

CONTENTS

>> Load 207 Breathing new life into classic games

RETRO RADAR

06 Ninja Theory
We go behind the scenes of this lovely tribute to *Shinobi* and other arcade classics

08 Brain Games
Beat the lockdown blues with this selection of puzzlers crafted by Professor Nick

10 Iain Lee
Quarantine makes Iain think how your music collection can enhance a game

12 Mr Biffo
Games may evolve, but Paul realises the past will remain the same, and he likes that

13 A Moment With
Aubrey Hodges tells us about his plan to put all his classic game soundtracks online

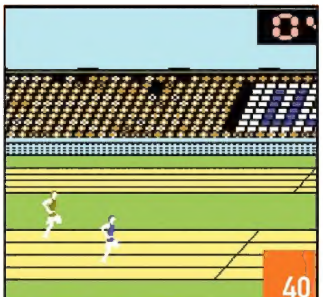
14 Back To The Noughties
Nick encounters great games and another pandemic while visiting June 2003

REVIVALS

16 Galaga
Darran reveals why Namco's excellent sequel to *Galaxian* managed to press all the right buttons

54 Mercs
Sega's explosive adaptation of Capcom's violent arcade blaster offered more than a solid conversion

82 Rebelstar: Tactical Command
Nick explains why he has chosen to champion this fantastic strategy offering from Julian Gollop



FEATURED

32 Hardware Heaven: Mark III
After buying one before lockdown, Nick's had plenty of time to revisit Sega's console

40 Classic Moments: Summer Games
Nick recalls the difficulty of mastering the pole vault and other events

48 Peripheral Vision: Famicom Network System
This obscure Famicom add-on had very little to offer... unless you loved gambling

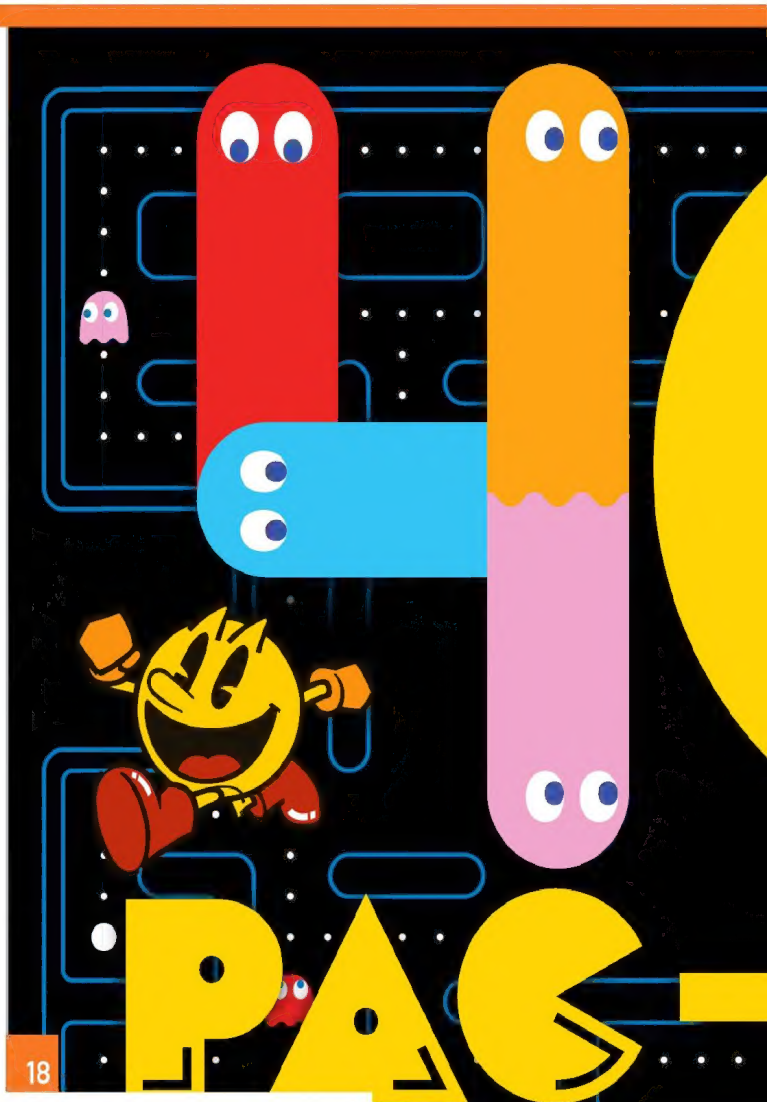
60 Ultimate Guide: Sakura Wars
With a new game making a rare western appearance, we revisited the Saturn original

64 The Making Of: Shadow Man
Discover how Acclaim Teesside made its atmospheric graphic novel adaptation

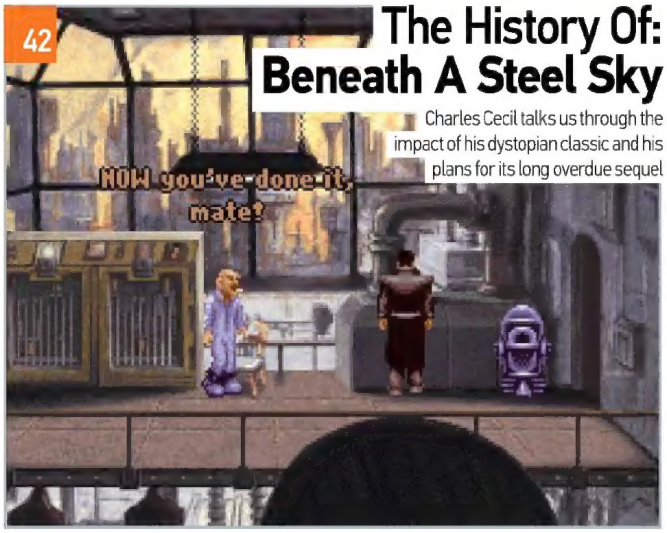
70 Future Classic: Alien Isolation
Darran's too scared to revisit it, so Drew is happy to champion this modern *Alien* game

72 Retro Inspired: The 13th Doll
Learn how a dedicated group of *The Seventh Guest* fans wanted to pay it tribute

76 In The Chair: Howie Rubin
The ex-Atari and Gottlieb stalwart talks us through his fascinating career



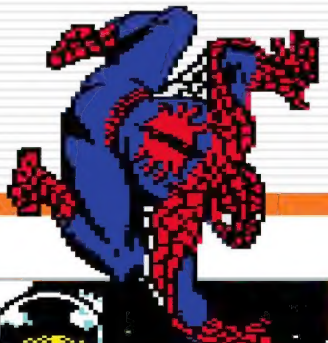
40 Years Of Pac-Man
Toru Iwatani is on hand to guide us through the evergreen classic, and he's not the only one...

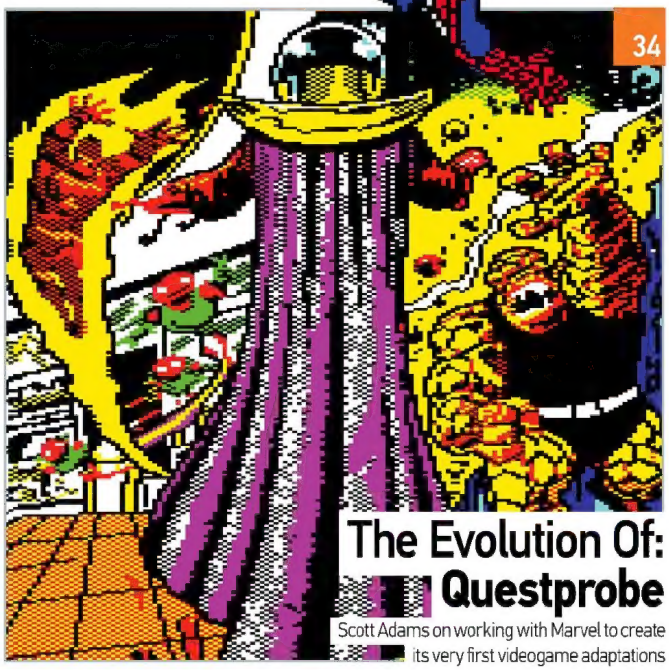


The History Of: Beneath A Steel Sky
Charles Cecil talks us through the impact of his dystopian classic and his plans for its long overdue sequel

Don't forget to follow us online for all your latest retro updates

RetroGamerUK | @RetroGamer_Mag | Retro Gamer Magazine | @RetroGamerMag | retrogamer@futurenet.com





34 **The Evolution Of: Questprobe**
Scott Adams on working with Marvel to create its very first videogame adaptations

50 **Ultimate Guide: Return Of Double Dragon**

ESSENTIALS

30 **Subscriptions**
More satisfying than working out how to get House Party up and running so you can chat with all your mates

88 **Homebrew**
In a break for the norm, we've using this month to highlight the excellent developments in the Amstrad scene

92 **Collector's Corner**
If you're a fan of the MSX, Tony Cruise's mouth-watering collection will have you drooling with jealousy

94 **Mailbag**
It's been a difficult time making **Retro Gamer** from home, so your lovely letters cheered us right up. Thanks everyone

97 **Next Month**
Learn what Mystic Meg knew months ago. You'll be as happy as she was

98 **Endgame**
Despite a holiday, Nick still found time to spoil the end of *Basketball Nightmare* for you. He's good like that

REVIEWS

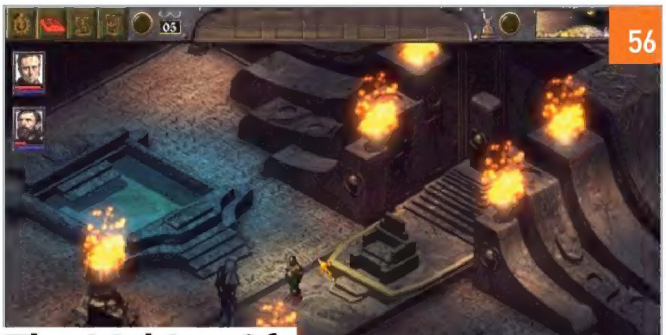
084 PC Engine CoreGrafx Mini

086 Final Fantasy VII Remake

086 Panzer Dragoon Remake

086 Tobu Tobu Girl Deluxe

086 Home Computers: 100 Icons That Defined A Digital Generation

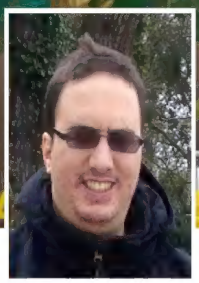


56 **The Making Of: Arcanum: Of Steamworks And Magick Obscura**
Find out what happened when the developers behind *Fallout* forged ahead with their own unique vision

» [PC] The search for *Shadow Gangs*' captured ninjas will take you everywhere, even forest canopies.

NINJA THEORY

Developer Jack tells us about his spiritual successor to Shinobi



» Jack is hoping that *Shadow Gangs* can be converted to contemporary consoles if it does well on Steam.

CONTENTS

6 NINJA THEORY
The mind behind *Shadow Gangs* reveals how he is paying homage to Sega's ninja classic, *Shinobi*

8 BRAIN GAMES
Has lockdown got you clawing at the walls? Try this array of brainteasers...

10 IAIN LEE
This month Iain recalls how games weren't the all-encompassing experience they are now

12 MR BIFFO
The mind behind *Digitizer* reveals more of his retro-related thoughts

13 A MOMENT WITH AUBREY HODGES
The musician who created the PlayStation *Doom* and *Doom 64* soundtracks is putting his work online

14 BACK TO THE NOUGHTIES
It's another interesting month for Nick as he investigates the time vortex and arrives in June 2003

Sega's *Shinobi* certainly left a big impression on the coder known only as Jack. It's taken him five long years and a failed venture on Kickstarter, but his spiritual successor to Sega's hit arcade game is now reaching the finish line and should be available to play on Steam right now. Here he tells us how *Shadow Gangs* came to be.

» Eddy, *Shadow Gang*'s fourth boss, was inspired by comments Jason received on *Eurogamer*'s forum.

Five years is a long time! How come it's taken that long?
I worked on it every day for five years in my spare time. I think it also had to do with us being a small team, working on an ambitious project.

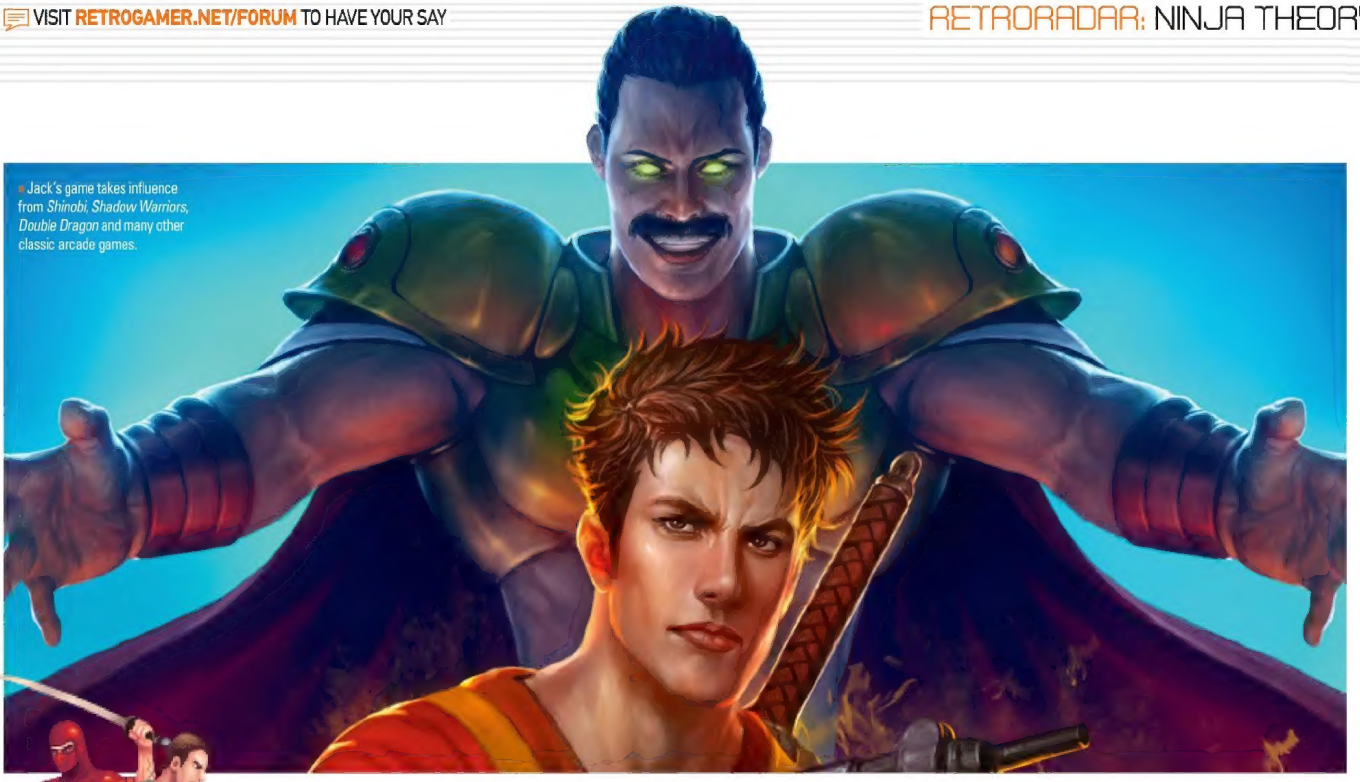
Were you concerned when the Kickstarter didn't reach its £28,500 goal back in 2016?
To be honest, not really. It would've helped a lot financially, but I was determined to finish the game anyway.

How many people have been involved in the project?
Many people came and went. In the end, the complete game is the work of five people: myself (programming, level design and financing); one musician, Naim Soufiane; one artist, Jericho Benavente, who did all the sprites and backgrounds (Evgenij Khomenko did the special effects); and one illustrator (Mansik Yang) for the game cover and loading screens.

The boss on level four looks like the late Freddie Mercury...
The idea came from some *Eurogamer* forum members. I made a post there early in the game's development, and Dan (*Shadow Gang*'s hero) was wearing tight shorts like Jean-Claude Van Damme in the *Blood Sports* movie. I don't remember how but Freddie Mercury's name came up and someone suggested for him to be a boss. I like Queen, I love Freddie and thought, 'Why not?'

Were there other suggestions from the public?
Someone suggested David Hasselhoff on the English Amiga Board forum, but in the end only a Freddie Mercury lookalike made it into the game. Dan's ninja transformation was also an idea from a MameWorld forum member. People's remarks and ideas had a huge impact on the game, and I would sincerely thank everyone for their input. This game would not have been the way it is without them.

Did you encounter any significant technical challenges when making *Shadow Gangs*?
The biggest problem was finding a good artist, and keeping him drawing. I wanted a high-definition game, but I didn't understand the



» Jack's game takes influence from *Shinobi*, *Shadow Warriors*, *Double Dragon* and many other classic arcade games.

"I don't remember how but Freddie Mercury's name came up and someone suggested for him to be a boss"

Jack

implications of that at first. The game art was finished in the end, but it was a difficult and rather painful journey.

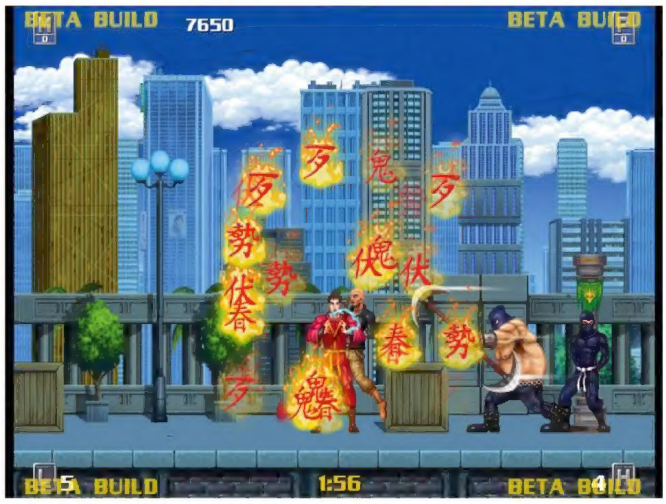
One thing that has stood out to us is the fantastic music, can you tell us a bit about it?
I had the music in mind before starting the game. The musician is a friend of mine, I met him at my first job after university. He had already made a music track for a 2008 unreleased game of mine, so I knew who to look for to make *Shadow Gangs*' music. I asked him to make the best music he could. It took him five years to finish all the game's tracks. He would send me a music track, and I'd send him back a list of remarks. Most tracks got changed again and again, and took months to actually get to their final version. I put some of these early versions and some complete unused tracks as unlockable content for people who finish the game. The music of *Shadow Gangs* is one of the main things that kept me going and motivated me.

There's a lot more exploration than Sega's *Shinobi* games, was this intentional?
Some levels are nonlinear, but only to a degree. I wanted to add some *Castlevania*-style exploration but this didn't really work. The game is action-oriented and fast-paced, and my early experiments with an exploration-style gameplay were negative. The levels are, however, larger than in *Shinobi* and resulted in the addition of a checkpoint system.

Even easy mode offers a high challenge, how much tweaking has been done to the difficulty?
I designed the game around the 'Crimson Ninja' difficulty. I knew I would need to devise two other less-difficult modes, so they were thought of from the start and tweaked while in beta testing. The easy mode has a unique feature in that Dan has a health bar, and not a one hit/death like in the normal and Crimson Ninja modes. I recommend most players to play it in easy mode first, only start playing in normal or Crimson Ninja mode if you either finished the game in easy, or if you are a *Shinobi* arcade game player.

» [PC] Further proof of the impact *Shinobi* has had on *Shadow Gangs*. You'll need fast reflexes to best it.

» [PC] Bosses not only offer a stiff challenge but also help to drive *Shadow Gangs*' story forward.



» [PC] *Shadow Gangs* shows off its similarities to *Shinobi* with a powerful screen-filling magic attack.

It must be quite a relief knowing *Shadow Gangs* is now finished. What's next for you?
If the game is a success on Steam, I would like to make console conversions of it. There is a big demand for a Dreamcast port from the Dreamcast community and the console's fans, which are some of the biggest supporters of the game. But first I have Playstation, Xbox and Switch versions in mind. Before finishing, I would like to thank my lovely wife, as the game would not have materialised without her support and patience; as well as my child, brothers and friends who helped me in one way or another on this adventure.

TRIVIA

With all sports currently shut down by the lockdown, here's a collection of questions about sports and games to get your brain into gear

1: Why did EA recall *Tiger Woods 99 PGA Tour Golf* for the PlayStation?
A It featured a bug that could corrupt memory cards
B Tiger Woods demanded it over licensing issues
C The discs were wrongly labelled as *FIFA 99*
D The disc contained a video of a *South Park* episode

2: *Gaelic Games: Hurling* for PS2 is based on an Irish sport, but where was it developed?
A China
B Canada
C India
D Australia

3: Which of these wrestlers has appeared in video games based on WWE, WCW and ECW?
A Lance Storm
B D-Von Dudley
C The Sandman
D Bam Bam Bigelow

4: Which of these consoles never received a conversion of *Tony Hawk's Pro Skater 3*?
A PlayStation
B N64
C Dreamcast
D PS2

5: Which secret characters were removed from *NBA Jam Tournament Edition* after the NBA objected to their inclusion?
A Bill Clinton and other politicians
B Will Smith and other musicians
C Sub-Zero and other *Mortal Kombat* characters
D Mark Turmell and other developers

6: Which of these sports has never been the basis for a *Mario* spin-off game?
A Tennis
B Basketball
C Ice Hockey
D Golf

7: Which Premier League football club does former Sega, Microsoft and EA executive Peter Moore now work for?
A Liverpool FC
B AFC Bournemouth
C Tottenham Hotspur
D Manchester United

8: Which of these tennis games doesn't really exist?
A *Sampras Extreme Tennis*
B *Tim Henman's Centre Court Tennis*
C *Anna Kournikova's Smash Court Tennis*
D *Jimmy Connors Pro Tennis Tour*

9: Which sports game did Amiga Power unfavourably compare to the famine in Somalia?
A *Kick Off '96*
B *WWF European Rampage Tour*
C *Grand Prix Circuit*
D *International Rugby Challenge*

10: In the Mega Drive version of *Sensible Soccer*, how is Paul Gascoigne's name spelt?
A Piul Giscoigne
B Peul Gescoigne
C Poul Goscoigne
D Puul Guscoigne

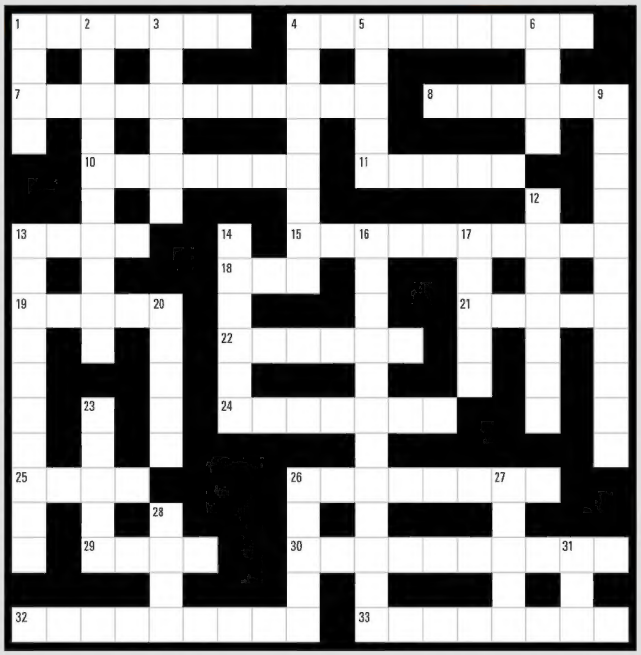
11: When work on *World Cup Carnival* overran in 1986, how did US Gold deal with the situation?
A Buy an old game and reskin it with the Mexico 86 licence
B Commission a new game to be completed in a rush
C Cancel the game and apologise to players
D Carry on and release the game after the tournament

12: Which baseball legend appeared in Intellivision PlayCable advertising?
A Tom Seaver
B Mickey Mantle
C Nolan Ryan
D Willie Mays

PICTURE QUIZ

Each of these images are screens from a retro game, but zoomed in until they're almost unrecognisable. Can you name the games they come from? If you're having trouble, have a look through the magazine – all four screenshots appear in full in this very issue.

CROSSWORD



ACROSS

1: Darran's favourite game
4: Original publisher of games including *Clayfighter*, *Earthworm Jim* and *Fallout*
7: _____ *Nights*, RPG set in the *Dungeons & Dragons* universe
8: Surname of Rebelstar, *X-COM* developer Julian
10: The process of moving game data from the storage medium to RAM
11: Capcom and SNK have their headquarters in this Japanese city
13: Cait _____, an oddly shaped *Final Fantasy VII* party member
15: Acorn's 32-bit computer range, introduced in 1987
18: 50Hz video standard used by UK televisions and games consoles
19: Unsuccessful console by Casio featuring a built-in sticker printer
21: Surname of Italian *Punch-Out!!* fighter Pizza
22: Peppy from *Star Fox* and Cream from *Sonic* are both this type of animal
24: Surname of Commodore founder and later Atari owner Jack
25: Portion of a game released to encourage players to buy the full version
26: 1982 TBS game show, featuring popular coin-ops
29: 1987 Amiga, Atari ST and Mac shoot-'em-up by FTL Games
30: Shoot-'em-up series by Llamasoft, first released for VIC-20 in 1982
32: Sega's final home console, released in 1998
33: Long tenured console manufacturer, based in Kyoto

DOWN

1: Manufacturer of the PlayStation family of consoles
2: Developer of the *Broken Sword* games, founded by Charles Cecil
3: The **Retro Gamer** staff member with the most interesting shed
4: Expanded version of *Metal Gear Solid* released for Japanese audiences
5: Sega arcade racer from 1981, later converted to Colecovision and Intellivision
6: Protagonist of the *Puyo Puyo* and *Madou Monogatari* games
9: The first home console to sell over 100 million units worldwide
12: The first home games console, made by Magnavox
13: Konami shmup, known as *Life Force* in some regions
14: This word completes arcade game titles beginning with Dragon and Ninja
16: Revered strategy series from Sid Meier.
17: Classic Eighties arcade game starring a police mouse of the same name
20: *Mario* sidekick that eats enemies and craps eggs
23: Developer of games including *Pac-Man*, *Dig Dug*, *Tekken* and *Ridge Racer*
26: Recurring eyepatch-wearing boss from the *Street Fighter* series
27: White-haired demon hunter, introduced in *Devil May Cry*
28: Ill-fated computer introduced by Coleco in 1983
31: The part of the game where the credits typically roll

Trivia
1:D, 2:D,
3:A, 4:C,
5:C, 6:C,
7:A, 8:B,
9:D, 10:B,
11:A, 12:B

Picture Quiz
1: Beneath A Steel Sky
2: Sakura Wars
3: Mercs
4: Summer Games

PUT A PAUSE
IN YOUR DAY
With so many demands from work, home and family, there never seem to be enough hours in the day for you. Why not press pause once in a while, curl up with your favourite magazine and put a little oasis of 'you' in your day.
PRESS PAUSE
ENJOY A MAGAZINE MOMENT
To find out more about Press Pause, visit:
pauseyourday.co.uk

Who is Iain Lee?
Iain Lee is a freelance broadcaster who loves gaming, particularly retro gaming. He currently hosts *The Late Night Alternative* show at weekdays from 10pm on www.talkradio.co.uk and runs daily retro streams on www.twitch.tv/iainlee.

The soundtrack of our lives

Videogames now are so completely immersive. If I'm playing *COD* (that's *Call Of Duty* for the older readers out there) then my headphones are on. I'm in that world in full 5.1 surround sound and if you need my attention, you better stand in front of me or hit me over the head with a book. I've missed deliveries, important phone calls and was even late for the start of my radio show once, all because I was totally lost in a game.

Of course, it wasn't always like that. Upstairs in my bedroom in, shall we say, 1986, it was a very different affair. Yes, the tiny portable TV was like a portal into a world where anything was possible, but more often than not there was a lot of other stuff going on in the background.

Firstly, MUSIC! At the age of 12 and 13 I discovered music. My pony little Aiwa system was laying down some 'phat beats baybee', as I was struggling to complete *Strykers Run*. I was playing a lot of The Monkees, as any right minded individual should have been, but the album that really sticks in my mind as being on the record player a lot while I stared at a screen is *Monty Python's Contractual Obligation Album*. In fact, just thinking about it now, I'm taken back to having to stop playing because I was laughing so much. The John Denver song which is too rude to repeat here, *I Bet You They Won't Play This Song On The Radio* and other tracks had me wetting myself making videogaming almost impossible.

It was the perfect match. Rude comedy and computers. We all know the term 'spam' to mean annoying, unwanted emails comes from the Python universe, so I guess I was in step with the geeky world. I can't imagine playing a game and listening to music or comedy now, but then they went hand in hand.

Another disturbance was the regular orders from mein führer, meine mutter. Or mum. Constantly shouting upstairs about really trivial stuff like personal hygiene, homework and eating. "Iain, your dinner's ready," was a regular call in our house, mainly at dinner time. Of course, I could always hear her, she had a voice that would pierce armour, but it was a real test of my resolve as to how long I dared ignore her.

Another disturbance was wrestling. If I had a mate round and we were playing, it would very quickly descend into smothering each other with a dressing gown and attempting to pin them down on the bed.

Er...actually, maybe ignore that last one. It reads a little weird.

I suppose the only real disturbance these days is the mobile phone, and like most of you, I'm addicted to picking the damn thing up every 30 seconds to check. Although, with the way things are right now, I'm trying to check it less and less.

Stay safe kids. See you on the other side.

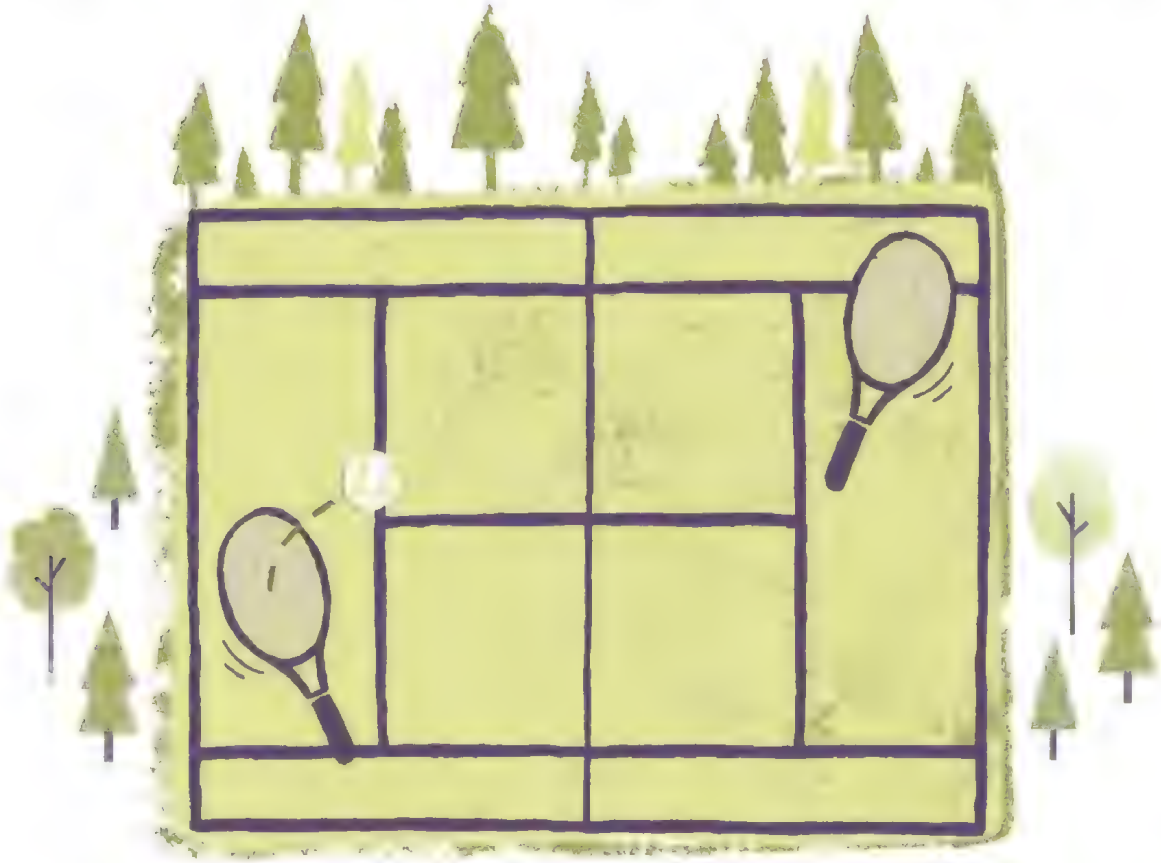
> "My pony little Aiwa system was laying down some 'phat beats baybee', as I was struggling to complete Strykers Run"

Do you agree with Iain's thoughts? Contact us at:

RetroGamerUK @RetroGamer_Mag retrogamer@futurenet.com

45 THOUSAND

TENNIS COURTS EVERY DAY!



Did you know that European forests, which provide wood for making paper and many other products, have been growing by over 45 thousand tennis courts every day!

Love magazines? You'll love them even more knowing they're made from natural, renewable and recyclable wood.

UNFAO, Global Forest Resources Assessment 2005-2015

Two Sides is a global initiative promoting the responsible use of print and paper which, when sourced from certified or sustainably managed forests, is a uniquely powerful and natural communications medium

There are some great reasons to #LovePaper
Discover them now,
twosides.info

TWO SIDES

Who is Paul Rose?
Paul is probably better known as Mr Biffo - the creator of legendary teletext games magazine *Digitiser*. These days, he mostly writes his videogame ramblings over at Digitiser2000.com. If you want more Biffo in your eyes, you can catch him as the host of *Digitizer The Show* at www.bit.ly/biffo2000.

Game on

Suffice to say, this hasn't turned out to be the year any of us were expecting. I hope you're all doing as well as you can be given the circumstances we're all living through. It's a bit rubbish, innit?

For me, like many of you, I suspect, retro gaming has never been a more valuable aspect of my life. Certainly, I know there's a school of thought which tells us not to live in the past, but especially now – when the present and the future are so scarily uncertain – I've never understood the perceived harm in it. I mean, so what? Is it just one of those things that people say, like 'don't wear your coat indoors – you won't feel the benefit'?

We're all a sum of our experiences, formative and otherwise. Why should any one of those experiences be less valid than any other?

Music collectors will listen to vintage albums without condemnation, because there's a certain respect that is afforded to music that I don't always see with games. It's acceptable nostalgia, in the same way that, say, being a football fan is an acceptable form of nerdishness.

The retro gaming community spent a long time in the shadows, wrestling with a wider perception that gaming was for kids, something to be embarrassed by. It was the pursuit of nerds.

It's changing now, of course. There's a growing acceptance of the cultural worth of iconic gaming – in part, doubtlessly, fuelled by this very magazine, not to mention the retro gaming events that, in an ordinary year, seem to be taking place every weekend. Museums will hold exhibitions of gaming's past. Shows like *Black Mirror* directly acknowledge gaming history – and even base stories around it. Social media has brought disparate and distant corners of the retro gaming world together like we could never have imagined.

With more and more people seeking something to cling to – any form of security or community – the one, almost unassailable, unchanging, form of security we have is what's been before. It's a history we share with so many others, and we need that common ground right now. We need other people with whom we have the same cultural touchstones.

The past doesn't change. *Jet Set Willy* isn't going anywhere. Lara Croft might evolve, but the original Lara – the real one, with the jagged polygons – will always be there. Your first games system, be it an Atari 2600, a Speccy, a C64, a PlayStation, is something nobody can take away from you.

There's a wonderful comfort in knowing that, thanks to the preservation of our gaming past, we can return to a safer, more assured, more secure, time – one that will forever be insulated from the events of the here and now.

The sounds, the visuals, the tactile feel of picking up a vintage controller... I need that more than ever. I need to know there's something I can trust in fully. And I have really, profoundly, appreciated that I know others who feel the same way. Those I can escape with together. Stay safe, everyone.

> "There's a growing acceptance of the cultural worth of iconic gaming – in part, doubtlessly, fuelled by this very magazine"

Do you agree with Paul's thoughts? Contact us at:

Facing the music

Videogame composer Aubrey Hodges on digitally releasing his back catalogue

Aubrey Hodges has been composing soundtracks since the early Nineties. His eclectic discography ranges from early DOS releases like *EcoQuest: The Search For Cetus* to console hits like *Doom 64*. He's now decided to make his work available to the masses, and as a result is releasing his catalogue on a variety of digital sites. Here he tells us why.

Why have you decided to make your videogame soundtracks available digitally?
I really want to make it as easy as possible for everyone to experience all of these soundtracks. Almost everyone is already using one or more of these services anyway, so now they will be able to use whatever provider they prefer to enjoy my music. I am also hoping that broader availability will help to capture the attention of the younger audience who may not have played some of these awesome older games.

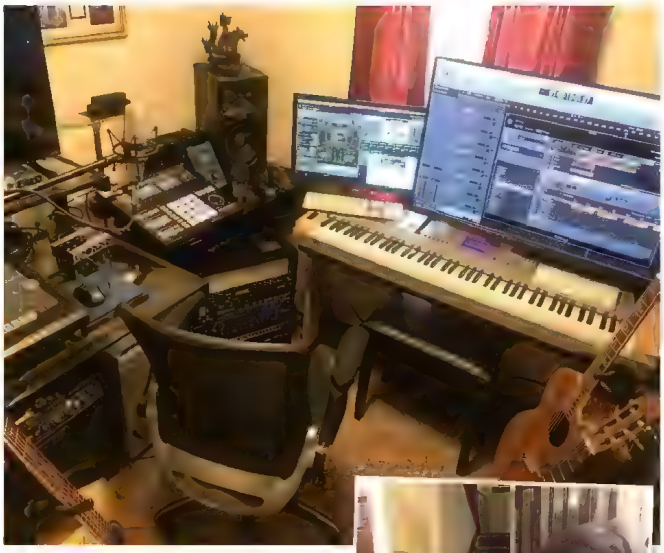
Do you own the rights to all of your music?
In most cases I maintained the rights. And in some cases, I was fortunate to negotiate a clause in my contract that allows me to sell soundtracks.

How many soundtracks will be available?
At least ten for now, but eventually my complete discography and new albums as I complete them.

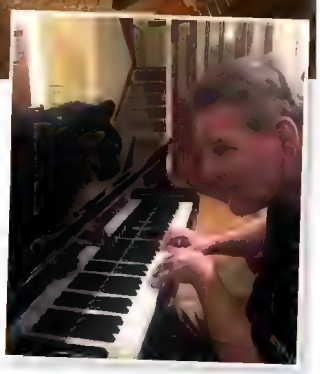
How many different online services are you hoping to be on?
Pretty much all of the major stores (iTunes, Google Play, Amazon, Bandcamp etc) and services (Spotify, Pandora, TikTok, Deezer, Napster etc), plus over 150 smaller ones.

Have you listened to any of your old pieces while you've been sorting everything out? Which ones have impressed you?
Honestly, I found myself quite relaxed by my *Journey* series of ambient albums. *Journey Into The Sacred Places* just puts me in the most chilled-out mood, while the tracks on *Journey Into The Dark Places* tend to make me creative and imaginative. And I had totally forgotten how much I enjoyed the Beethoven quartets that are all done with futuristic sounding synths. I just love making music and because I write so much of it, it's nice to revisit the old work and just experience it simply as a listener.

You have quite a few *Doom* and *Quake* soundtracks under your belt now, what is it you like about those franchises?
Both are incredibly enjoyable to play and are super immersive. The over-the-top nature of the stories, intensity of the gameplay experiences and incredible settings provided a perfect opportunity for me to unleash audio mayhem.



» A look at Aubrey's studio where he composes his music. That's a lot of guitars in a small space.



» Aubrey has been creating videogame music since 1991. His first release was *EcoQuest: The Search For Cetus*.

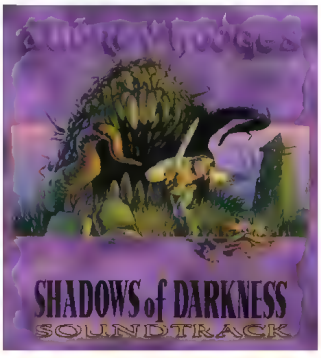
How would you describe your music to anyone that might not have listened to it before?
This is really hard to answer because my music is so very different from project to project. In general terms, I am very textural and stylised, but my music tends to revolve around emotion rather than complexity. Getting the emotional flavour just right is far more important to me than adding a ton of fine detail. In general, I would say that my music is almost always dripping with mood.

What's the one soundtrack our readers should listen to first?
I suppose I would choose *Quest For Glory: Shadows Of Darkness* as an introduction album. I really composed in quite a few styles and many different moods on that one. It should provide quite a sampler of what my music is all about.

You're adding the final touches to your 20th anniversary edition of PlayStation *Final Doom* soundtrack. What can readers expect from that?
Pure unadulterated evil! Muhahaha! All kidding aside, it should be quite a treat as I am extending all of the level tracks, as well as redoing the stereo imaging and remastering the existing base tracks. I have also added some new sections on all of the level tracks and included some new instruments and samples where I had originally wanted to do more back during the original composing. The tracks feel brighter, yet somehow more disturbing and hellish. The added detail brings out the sense that something is always just around the corner... and never something good. ✱

» Aubrey describes his music as "dripping with mood". It's readily apparent if you've experienced *Doom 64*.

» A lot of work has gone into Aubrey's remaster of *Doom* and he's pleased with how it's shaping up.



» Aubrey recommends downloading *Quest For Glory* if you want a taste of his musical style.

BACK TO THE NOUGHTIES

JUNE 2003 – The critics have their hands on the blockbusters Soulcalibur II and Enter The Matrix, but will they live up to the hype? Nick Thorpe brings a nonexistent spoon to a sword fight in an attempt to find out

[GameCube] Sorry guys, Link was always the best *Soulcalibur II* guest fighter. Spawn? Honestly the state of that. Stop it.

NEWS JUNE 2003

5 June marked the first day in over two months that no deaths had been reported from SARS, an important milestone in containing the respiratory disease which had first been identified in November 2002. The epidemic was mainly concentrated in Asia, with Canada being the worst hit nation outside of that region. The last human infection was recorded in 2004, but a related coronavirus strain is responsible for the current COVID-19 pandemic.

Ten-month-old Mionna Williams survived a seven-storey fall on 23 June in Peekskill, New York. Her father, Willie Williams, was later arrested for attempted murder after it transpired that he had dropped her from a window during an argument with Mionna's mother. He was convicted in April 2004 and sentenced to 25 years in prison, as well as seven years for assaulting his ex-girlfriend.

On 27 June, a cinematic phenomenon premiered in two Los Angeles cinemas. *The Room*, spearheaded by Tommy Wiseau, grossed just $1,800, however its reputation as one of the worst films ever made gave it a cult appeal, ensuring regular runs in independent cinemas. *The Disaster Artist*, a book about the creation of the film by actor Greg Sestero, was itself adapted as a film in 2017.

THE LATEST NEWS FROM JUNE 2003

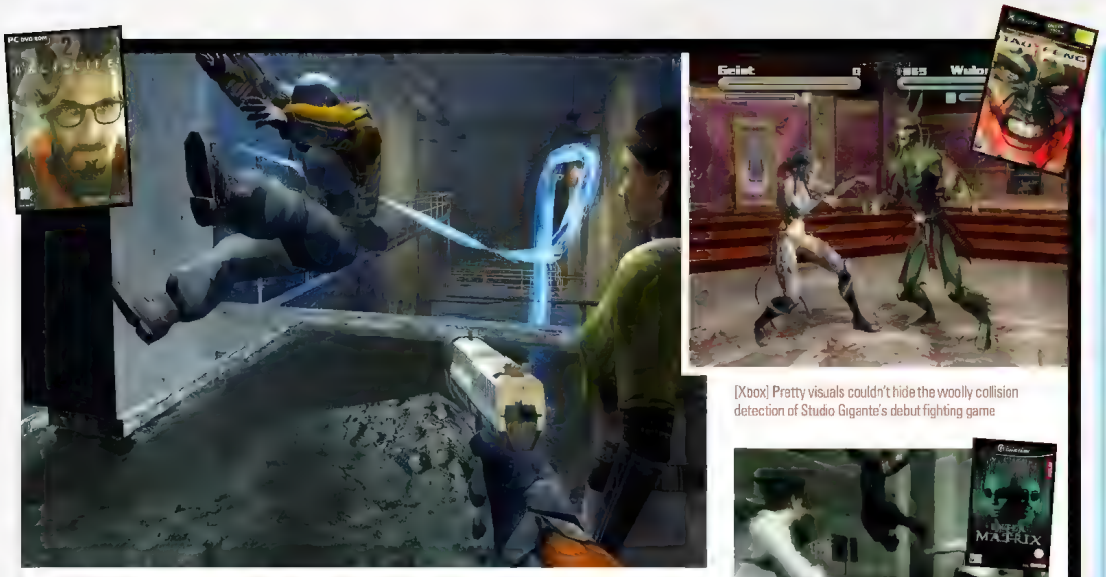
You can't accuse the Wachowskis of lacking ambition, as they clearly had big designs on making *The Matrix* the pop culture phenomenon of 2003. The divisive sequel to the 1999 sci-fi classic had already hit cinemas, the third movie was due for release later in the year, and sandwiched between them was the big-budget multiformat videogame *Enter The Matrix*. Rather than giving players control of Neo during the events of the films, the game allowed you to choose between Ghost and Niobe to experience a plot that runs parallel to *The Matrix Reloaded*. This was described as "one of the redeeming features" of the game by *games™*, which laid into the tie-in in a 4/10 review. The "repetitive action sections" failed to impress, with bullet time moves lacking "the impact they might have had" due to the likes of *Max Payne*, while the driving sections were "totally devoid of fun or excitement". The shooting sections were considered even worse, consisting of "endless messy grey tunnels" and "practically nonexistent" gameplay.

Namco's *Soulcalibur II* brought the scrapping action, both on-screen and off as each of the three console versions featured an exclusive fighter. Thankfully, this game did live up to the hype it had generated, scoring 9/10 from *Edge* and 8/10 in *games™*, with the former describing it as "a relatively conservative sequel" that was still "superior to its predecessor in almost every way". Both magazines agreed that the PlayStation 2 version had the weakest exclusive character in *Tekken*'s Heihachi, but couldn't agree on the best – *Edge* plumping for comic book import Spawn and *games™* choosing *Zelda*'s Link. Both also agreed that the PS2 had the least impressive visual presentation. However, *games™* noted that "all three versions do their systems proud" and that the "visuals don't utterly shame its Dreamcast predecessor".

Of course, as one hype cycle ends, another continues to roll, and PC gamers were treated to a major preview ahead of the launch of *Half-Life 2* on 30 September 2003. "*Edge* is used to its cover games' release dates shifting like mirages," the magazine noted, "but [Gabe] Newell is set on this." Perhaps more prophetic was the idea that, "*Half-Life*'s most important step forward seems to be the introduction of real-world physics into

[GameCube] Ever want to see famous music artists duke it out? *Def Jam*'s violent delights should be up your alley.

[PC] Unlike most MMOs that were active in 2003, *EVE Online* is still active and very popular indeed.



[PC] This very screenshot appeared in *Edge*'s preview of *Half-Life 2* some 17 years ago!

the environment," as the magazine outlined various scenarios involving the gravity gun and other objects. Valve appeared to be incredibly confident about the game's prospects too, with Gabe Newell claiming, "We knew, given the strength of our fanbase, that we would be successful with *Half-Life 2*. So we said, 'Let's take everything we can and see how far we can push it with the next generation of technology, gameplay and character design.'"

Anyone who had ever wanted to see Ghostface Killah smack DMX in the face would have been pleased with the strong reviews for *Def Jam Vendetta* on PS2 and GameCube. The collision of rhymes and rumbling scored 87% in *Play*, which commended it for "great sounds, addictive gameplay, an imaginative plot and plenty to unlock". The game also received 7/10 in *games™* and 8.9/10 in *Cube*. Elsewhere on the PS2, horror games were the flavour of the month, with both *Silent Hill 3* and *Clock Tower 3* arriving. *Edge* felt that Konami's game merited 7/10, praising it for atmospheric presentation but criticising it for a lack of new ideas, while *games™* scored it 6/10. *Clock Tower 3* earned the same score, drawing praise for simulating the protagonist's panic, but *Edge* felt it was "never scary" and worth just 3/10.

The first of the famous 'Capcom Five' arrived this month too, to a muted reception. The deceptively simple third-person shooter *PN03* earned 7/10 in *Edge* and 6/10 in *games™*, with the former comparing it to the likes of *Nemesis*, *1942* and *Space Invaders* due to its old-school sensibilities. Unfortunately, GameCube owners couldn't look forward to any further highlights, with the rest of the month rounded out by belated ports such as *Splinter Cell*, and extremely belated ports like *Resident Evil 2*. The Xbox release schedule was similarly underwhelming – if you weren't set on *Soulcalibur II*, a selection of ports like *State Of Emergency* or disappointing original games like *Batman: Dark Tomorrow* awaited. The best of the bunch was *Tao Feng: Fist Of The Lotus*, a fighting game created by ex-*Mortal Kombat* developers including John Tobias. *Edge* gave it 5/10 and *XBM* awarded it 6/10, with the latter complaining that "for every well-designed character animation there is a hideous cheap-feeling collision".

[Xbox] Pretty visuals couldn't hide the woolly collision detection of Studio Gigante's debut fighting game

[GameCube] Proving that quality is no predictor of commercial fortunes, *Enter The Matrix* went on to sell 5 million copies

For online gamers though, it was a good month. The space trading, combat and diplomacy simulator *EVE Online: The Second Genesis* was out on PC, and scored 8/10 in *Edge*. The review praised the game's "vast sense of potential" and "large and helpful community", noting that the trade specialisation options meant that it "isn't a game where high-level players do exactly what low-level players do, only with more fireworks". The review concluded "time will tell whether it reaches the heights it's aiming for" Today, we can say it did.

Join us again next month, as the gaming world takes its annual trip to Los Angeles for E3. ✱

CHARTS

JUNE 2003

PLAYSTATION 2

1 – Enter The Matrix (Atari)
2 – SOCOM: US Navy Seals (Sony)
3 – Return To Castle Wolfenstein: Operation Resurrection (Activision)
4 – Def Jam Vendetta (EA)
5 – Grand Theft Auto: Vice City (Take 2)

PC

1 – The Sims: Superstar (EA)
2 – Championship Manager 4 (Eidos)
3 – Grand Theft Auto: Vice City (Take 2)
4 – The Sims (EA)
5 – Rise Of Nations (Microsoft)

GAME BOY ADVANCE

1 – Yu-Gi-Oh! Worldwide Edition (Konami)
2 – Donkey Kong Country (Nintendo)
3 – The Legend Of Zelda: A Link To The Past (Nintendo)
4 – Sonic Advance 2 (Atari)
5 – Crash Bandicoot 2: N-Traced (Vivendi)

MUSIC

1 – Bring Me To Life (Evanescence)
2 – Ignition Remix (R Kelly)
3 – I Know What You Want (Busta Rhymes and Mariah Carey)
4 – Say Goodbye/Love Ain't Gonna Wait For You (S Club)
5 – Gay Bar (Electric Six)

THIS MONTH IN...

Play

"All of you, cast out your PS2s now and discover the true meaning of being a game fan!" What absurdity is this, coming from a single-format magazine? It's a review of *Dragon Quest Monsters: Caravan Hearts* for the Game Boy Advance, tucked in the Japanese news section. "It has slimes and design work by Akira Toriyama," it says. Fair enough.

Edge

Companies are queuing to do a deal with Sega, with Namco expressing interest in a merger. *Edge* reports that Sega would be the larger partner due to its arcade rival being "short of personnel and technical resources". Further, Sega's investors are "dissatisfied with the attitude of Sammy's shareholders", citing concerns over business direction.

XBM

A recent feature made the point that RPGs teach stealing, and reader Sue Van Gils is displeased. "There are so many issues parents have against playing videogames, so why make it worse?" But she has an answer: "I think I understand why you are pissing over RPGs. Xbox simply doesn't have anything worth calling an RPG." Ouch.

1UP
24250
HIGH SCORE
30580

Galaga

IT'S ALL ABOUT THE HIGH SCORE

RETROREVIVAL

» ARCADE » 1981 » NAMCO

I've always had a soft spot for Namco's sequel to *Galaxian*. My memory isn't the best, but I'm pretty sure my first encounter with it was at the local funfair that visited Bournemouth's Queen's Park every year. My Nan would often take me there as it was only a short walk from her house and I'd always be given a few ten pence pieces to play on the many arcade games that were available.

I was already a fan of *Space Invaders*, *Phoenix* and *Galaxian*, so any new shmups were always the first games to get my attention, and *Galaga* was no exception. Returning to it today, it's easy to see why it left such a lasting impression on me when I first encountered it as a youngster. The visuals are a suitable improvement over *Galaxian*'s distinctive sprite work, the new bonus stages are a great way to show off your mastery of the game, while the more aggressive dive bombing of enemies this time around means that Namco's sequel is a surprisingly challenging game to master.

For me though, the real stroke of genius to *Galaga*'s game design is the introduction of the bosses that will swoop down and throw out a tractor beam. Initially your first instinct is to avoid it, but inevitably you end up choosing the beam or certain death against a suiciding enemy or its bullets. That's when you realise that your ship doesn't die, but becomes a spoil, and if you're careful, a skilfully placed shot will return it to you, effectively doubling your firepower.

The kicker is that while your firepower is magnified, so too is the width of your two ships, meaning you have to pay even more attention to the crazy aliens that are intent on careening into you. It's a truly exceptional example of risk versus reward, and you soon realise that the quicker you can safely sacrifice one of your available ships, the quicker you'll be able to rank up the high scores needed to top the leaderboard. And let's face it, it's all about the high score.

PAC-MAN 40TH ANNIVERSARY

NAMCO'S YELLOW MASCOT STANDS PROUD AS THE INDUSTRY'S FIRST RECOGNISABLE VIDEOGAME STAR. AS PAC-MAN CELEBRATES HIS 40TH YEAR, WE FELT IT WAS THE IDEAL TIME TO SIT DOWN WITH PAC-MAN CREATOR TORU IWATANI AND QUIZ HIM ABOUT HIS GROUNDBREAKING GAME

WORDS BY NICK THORPE AND DARRAN JONES

40 YEARS OF PAC-MAN

It's astonishing to think that one of the biggest gaming phenomenons of the Eighties was contained within just 24 kilobytes of data. Coded by Namco's Toru Iwatani and released for location testing in Shibuya, Tokyo in May 1980 after 17 months of gruelling coding, *Puck-Man*, as it was then known, went down well with those that were able to play it. Encouraged by those early playtests, *Pac-Man* soon went on full release in Japanese arcades, but it wasn't until Iwatani's game reached the shores of America and the rest of the world that Namco's arcade game really achieved planetary domination.

Before it landed in western arcades, Namco America requested numerous changes to *Puck-Man*, including renaming three of the ghosts from Akabei, Aosuke and Guzuta to Blinky, Inky and Clyde (only Pinky retained its original name). However, the biggest change was undoubtedly the request to change the game's title due to worries over potential vandalism (the entire story entered pop culture history thanks to Bryan Lee O'Malley's *Scott Pilgrim* graphic novel and Edgar Wright's subsequent film adaptation). *Puck-Man* become *Pac-Man*, and with this new moniker the game became absolutely huge, much to the delight of Midway Games, as it had agreed to distribute both *Pac-Man* and *Rally-X* for Namco.

Pac-Man became a worldwide success, and numerous sequels and merchandising opportunities followed in a gigantic tidal wave of *Pac-Man* fever that swept across the globe. Media attention, high score competitions and a constant stream of paraphernalia helped turn Toru Iwatani's character into a household name, a legacy that has now endured for an impressive 40 years. The success of *Pac-Man* led to a slew of imitators and clones, particularly in the home, including *Snapper*, *Munch Man*, *Snack Attack* and *KC Munchkin!*. Some of these games received lawsuits from Atari, as it had secured the rights for home use and had released an official conversion for the Atari 2600 (you can read more about that in issue 179). As annoying as these clones were for Atari, they highlighted just how much demand there was for Namco's yellow pellet-muncher, who continued to find success in the arcades throughout the Eighties and early Nineties, and eventually, home computers and consoles.

The legacy of *Pac-Man* and its importance to gaming is well-known thanks to excellent documentation and the sheer cultural impact Iwatani's game has had in the last four decades. American games writer Cat DeSpira revealed in a brilliant 2019 article how the paint on left-hand sides of *Pac-Man* cabinets was worn down due to the way arcadegoers gripped it during play (you can read about it at bit.ly/pacmanuntold) while Alex Wade and Van Burnham are just a few of the authors who have examined the cultural importance of the coin-op classic. As Namco continues to celebrate *Pac-Man*'s anniversary with a host of new games and products this year, it's obvious that our obsession with Toru Iwatani's iconic creation shows no sign of diminishing any time soon. ▶

CONTENTS

20 SPECTRAL SABOTEURS
Toru Iwatani is on hand to navigate us through the complex artificial intelligence that helped make *Pac-Man* a hit.

22 DESIGNED TO PAC ARCADES
Learn the origin of *Pac-Man*'s design with Iwatani-san and discover how *Pac-Man*'s abilities have evolved over the years.

24 AHEAD OF THE PAC
Jon Stoodley explains what it's like taking part in the competitive *Pac-Man* high score scene and why he prefers it to *Donkey Kong*'s.

26 PAC TO THE FUTURE
We examine *Pac-Man*'s many games and go briefly behind the scenes of *Pac-Man Championship Edition* and *Pac-Man World 3*.

28 PAC OF ALL TRADES
Supercade's Van Burnham discusses *Pac-Man*'s impact, while Jerry Buckner revisits his 1981 hit song, *Pac-Man Fever*.

MEET THE PAC

TORU IWATANI — Creator, *Pac-Man*

TADASHI IGUCHI — Director, *Pac-Man Championship Edition* series

JON STOODLEY — *Pac-Man* high score expert

PHILIP OLIVER — Released *Pac-Man World 3*

ANDREW OLIVER — Released *Pac-Man World 3*

JERRY BUCKNER — Cowriter, *Pac-Man Fever*

LEE EIRTON — Sub-chief *Pac-Man* officer EMEA

VAN BURNHAM — Author, *Supercade*

SPECTRAL SABOTEURS

HEROES ARE ALL WELL AND GOOD, BUT THEY NEED VILLAINS TO CONTRAST WITH. ENTER THE GHOSTS, PAC-MAN'S LONG-TERM ADVERSARIES AND THE DRIVING FORCE BEHIND THE GAME DESIGN. TORU IWATANI EXPLAINS THEIR IMPORTANCE AND HELPS US TO UNDERSTAND THEIR UNIQUE QUIRKS

When retro gaming rappers Duane and BrandO did a song based on *Pac-Man*, half the performance was from the perspective of the ghosts, and that's no less than they deserved. After all, what would Pac-Man be without them? He'd just be a gluttonous chap wandering around a confined space and eating everything in sight, rather like us during lockdown. The big secret is that while Pac-Man is the star of the show, from a game design perspective, the quartet of persistent persecutors that inhabit Pac-Man's maze are arguably far more important than he is.

Unlike most videogame enemies of the time, the ghosts in *Pac-Man* each have identifiable behaviours that distinguish them from one another. This was actually made clear to players on the title screen of the game, with words describing the 'character' of each ghost. But why give them these unique traits in the first place? "Programming the four ghosts to chase after Pac-Man using the same algorithm would simply make them all follow the same path toward Pac-Man, thus making the game bland," says Iwatani. "So we gave them 'personalities' using an AI algorithm where the ghosts would spread and move differently, all the while putting the pressure on Pac-Man."

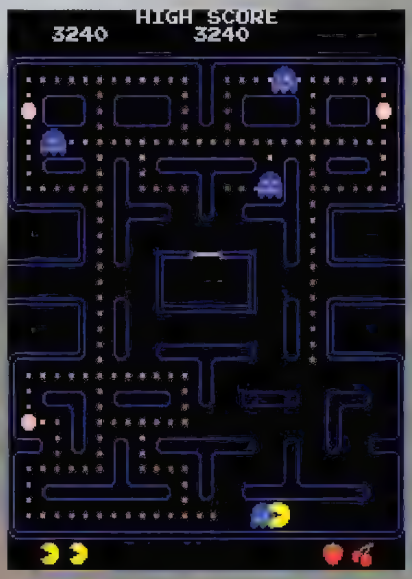
As a result, it's crucial that you understand the way that the ghosts behave if you're to have any hope of playing *Pac-Man* well. This was recognised very early on – when *Computer & Video Games* dedicated most of a page to *Pac-Man* tips in its debut issue, much of the focus was on the ghosts and the way they operate. At that time, players had cottoned on that some ghost behaviours changed based on their location relative to Pac-Man, and that "a vigorous shake of the lever can confuse the ghosts", but the mechanisms dictating these behaviours were not understood. The bottom of the maze was identified as a particularly dangerous area, but reasons for this were not provided.

Today, we have a full understanding of what makes Inky, Pinky, Blinky and Clyde tick, gained by looking at the inner workings of the program. The game begins with the ghosts in 'patrol' mode, but they soon switch to 'chase' mode. During this time, each ghost has its own target, based on different rules that mostly relate to Pac-Man's position and direction of travel. When a ghost reaches a junction, it makes a decision to turn based on which direction would give it the fastest straight-line route to its target.

As well as allowing us to understand the ghosts, looking at the program also reveals the coding flaws and compromises that give them a little extra personality. For example, the simple straight-line calculation that ghosts use at junctions is one born of necessity, but one that means that the ghosts don't always choose the most efficient routes based on the actual layout of the maze. However, the more interesting one is that when Pac-Man is facing upwards, a bug means that Pinky and Inky set their targets to the left of where they should be – making their behaviour less predictable and much more dangerous.

"WE GAVE THEM 'PERSONALITIES' USING AN AI ALGORITHM WHERE THE GHOSTS WOULD SPREAD AND MOVE DIFFERENTLY, ALL THE WHILE PUTTING THE PRESSURE ON PAC-MAN"

TORU IWATANI



[Arcade] Part of what makes the ghosts so appealing is that you can turn the tables on them, at least temporarily.

1UP
770
HIGH SCORE
770
PINKY
If any ghost manages to get ahead of you and create a trap in combination with Blinky, Pinky is typically the culprit. "The pink ghost intercepts Pac-Man by targeting the location 32 dots in front of Pac-Man," Iwatani explains. This means you can sometimes win a game of chicken with Pinky when approaching a junction, as she will start aiming for a target behind her current position.
PATROL ROUTES
After a few games, you should notice that each ghost has a 'home corner' that it will patrol from time to time, rather than chasing Pac-Man. It's easy to tell when they're changing their behaviour modes, as they'll all abruptly change direction when they do. It's particularly important to bear this route in mind for Clyde, as he will start to follow this path when you get too close to him.
THE TUNNEL
One of the first tricks you'll learn when playing *Pac-Man* is to head for the tunnel when the ghosts are in hot pursuit, as they'll slow down while passing through. This can give you some breathing space, so long as you can effectively manage your route coming out of the tunnel. Of course, you should check that the other end is clear before you attempt this strategy, as there's only one exit.
INKY
The trickiest of the ghosts to predict, since his behaviour relates to more than one factor. "The cyan ghost moves towards the direction derived by applying point symmetry to *Pac-Man*'s core," says Iwatani. The best explanation is that Inky finds the space 16 pixels ahead of Pac-Man, calculates Blinky's distance from that space, then doubles the length of that line and targets the end of it.
CLYDE
"The orange ghost moves toward its designated position when coming too close to Pac-Man," says Iwatani. When Clyde is at a distance, he will follow the same targeting rules as Blinky. However, when he is within a certain range, his behaviour changes and he will revert to trying to get back to his patrol route. As a result, he is at his most dangerous in the bottom-left corner of the maze.
BLINKY
When you find yourself with a ghost nibbling at Pac-Man's backside, it's usually this chap. "The red ghost chases Pac-Man directly," highlights Iwatani. "The red ghost's speed comes with the game's difficulty progression. This design choice was due to the unique setup of arcade games – we needed to ensure that the game isn't something that could be played forever, so to speak."
SECRET ESCAPES
One thing that novice *Pac-Man* players don't know is that the ghosts can't travel upwards when they reach these four junctions. If you can get them all to chase you to this point, this is another place where you can gain some much needed personal space for our persecuted pal. But there's an exception – the ghosts *can* go upwards in these passages if they've been turned blue.
TARGETS (COLOUR CODED PER GHOST, NONE FOR CLYDE)
MODE CHANGE (CLYDE ONLY)

DESIGNED TO PAC ARCADES

AS ONE OF THE FIRST IDENTIFIABLE PROTAGONISTS IN VIDEOGAMES, PAC-MAN'S DESIGN WAS OF PARAMOUNT IMPORTANCE TO THE SUCCESS OF THE ORIGINAL ARCADE GAME AND THE SERIES AT LARGE. TORU IWATANI ELABORATES ON SOME OF THE DECISIONS THAT GAVE US THE ICON WE KNOW TODAY

A ghost chases Pac-Man off the screen, only to be chased right back by a much larger Pac-Man. It's a simple intermission scene, offering a little bit of humour and personality based on the hero's ability to turn the tables on his foes, made to look quaint by the rapid progress of technology. But four decades on, it's easy to forget just how unusual it was for a videogame to have a star character at all. Many games of the Seventies put players in control of cars, tanks, spaceships and other vehicles, with the most recognisable characters of the decade being the Space Invaders – nameless enemies without any personality traits to speak of.

Why did Namco adopt this revolutionary approach to gaming presentation? According to *Pac-Man*'s designer Toru Iwatani, the answer lies in reaching across demographics. "The concept of creating a cartoonish hero came from the idea of making the game so that it appeals to females and couples," he explains. "We designed the characters, such as the enemy ghosts, so that they look cute, and incorporated a likeable character relationship similar to the characters in the cartoon *The Tom & Jerry Show*, and in that sense, I believe the cartoonish style made it very recognisable and liked by our gamers."

> "I IMAGINED PAC-MAN TO BE A CREATURE THAT EXISTS TO SIMPLY 'EAT' WITHOUT MUCH EMOTIONS AS WELL AS TO BE A NICE GUY TO EAT ALL THE EVILS HE SAW OUT IN HIS WORLD"
>
> **TORU IWATANI**

The story behind *Pac-Man*'s visual appearance is one that many people know, albeit in incomplete form. While it's true that *Pac-Man* was inspired by a pizza with a slice removed, that's not the whole story – in Susan Lammers' 1986 book *Programmers At Work*, Iwatani also explained that the circular shape was achieved by rounding off the Japanese kanji character for mouth, which is a simple square shape. But what of Pac-Man's personality? "I imagined Pac-Man to be a creature that exists to simply 'eat' without much emotions as well as to be a nice guy to eat all the evils he saw out in his world," says Iwatani. "I also didn't give him eyes, so that his emotions can't be seen." Of course, while this worked for the in-game sprite, the need for striking cabinet artwork led to more relatable, human features. "I didn't initially imagine having Pac-Man with arms and legs, but I wanted to make sure the arcade cabinet left a lasting impression, so from an industrial design standpoint, I think it worked well," Iwatani recalls.

According to Iwatani, the environment that *Pac-Man* inhabited was given just as much thought as the character himself. "I didn't want to make the game seem difficult and deter players away with its mazelike design, so it was crucial to ensure that the game was accessible to everyone. We did this by designing the maze in a way that it doesn't become the focus of attention, such as thinning the walls and making them neon blue so that the walls would blend with the black background. We also made sure that the rules and the controls were as simple as possible," he explains. "In addition, as mentioned earlier, I think the cartoon style [we] used helped in creating characters that appealed and resonated well with the player, so I would say that's a key aspect toward his design."

The decisions made in those early days have informed the character's later development. While his simple shape and love of eating have remained, the version of the character that appeared on the cabinet ultimately gave more room to grow – after all, running and jumping in *Pac-Land* would have been much harder without limbs. ▶

PAC-POWERS

SOME OF PAC-MAN'S MORE NOTABLE SKILLS AND ABILITIES FROM OVER THE YEARS

BIG EATER

Pac-Man's signature ability is his desire to gobble up everything in sight – and with the aid of a Power Pellet, he can even chomp down on enemies and send them packing temporarily.

GIANT GROWTH

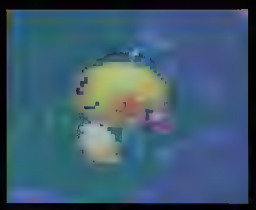
Although Pac-Man first went big in one of the original game's cutscenes, *Super Pac-Man* was the first game featuring that ability, allowing Pac-Man greater speed and the ability to smash doors.

JUMPING

Platform spin-off *Pac-Land* gave our hero the simple ability to jump, but it transferred into the original maze game format by the end of the Eighties, thanks to the isometric outing *Pac-Mania*.

PYROMANCY

Pac-Man's ability to shoot fireballs first became apparent in *Pac-In-Time* – a reskinned *Fury Of The Furries*. He has since demonstrated his fire-throwing powers in the *Ghostly Adventures* series.



SWIMMING

After struggling with water in *Pac-Land*, our hero learned to swim for *Pac-In-Time*, where he could also blow bubbles. Unlike his fiery abilities, swimming carried over to the *Pac-Man World* series.

THROWPAC FASHION

THE MAKEOVERS THAT HAVE HELPED PAC-MAN STAY FRESH OVER FOUR DECADES

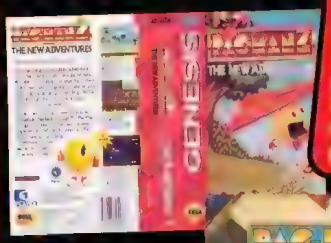
1980-1989

» Pac-Man experimented with capes in *Super Pac-Man*, however we don't think this look is 'on fleek'.

» We hold a special place in our hearts for the *Pac-Mania* poster version of Pac-Man. It's simple, friendly and perfects that iconic look.

1990-1999

As Pac-Man [illegible] experiment [illegible]



» Not even in the seven circles of Hell would you find a face as terrifying as the one featured on the box for *Pac-Man-2: The New Adventures*.

» *Pac-Panic* shows off a more sinister iteration of Pac-Man on its artwork, who is the real antagonist here? It doesn't look like the ghosts, that's for sure.

2000-2009

» *Pac-Man 256* embraced the original chunky sprite version of Pac-Man and supercharged it into the 21st century.

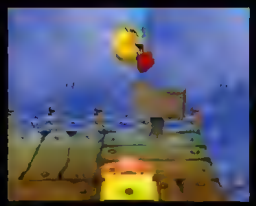
2010-2019

Looking for ways to refresh [illegible] most of the attention was placed on tinkering with his limbed look. *Pac-Man And The Ghostly Adventures* gave him

» The *Championship* version of Pac-Man is everything you'd want from modern Pac-Man, where the *Pac-Man Pop!* iteration haunts our nightmares.

REV ROLL

Borrowing a trick from another gaming star in *Pac-Man World*, the yellow fellow charges up on the spot before rolling off at high speed, enabling him to smash into enemies and climb steep hills.



BUTT BOUNCE

Given his entirely round body, can Pac-Man even be said to have a butt? Regardless, by leaping into the air and slamming down on his backside, Pac-Man can defeat enemies and activate switches.

PELLET PELT

In *Pac-Man World*, our pac-tastic protagonist can actually make use of the pellets he has collected by chucking them at enemies. You can also charge your shot for an added dose of explosive impact.

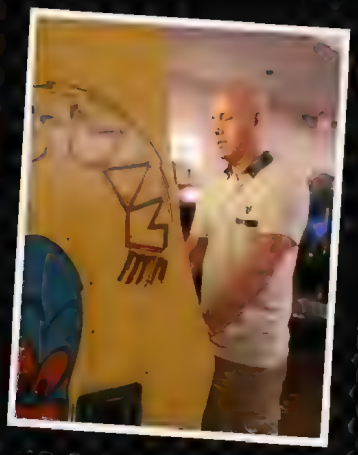
CRYOMANCY

The *Ghostly Adventures* games added ice powers to Pac-Man's arsenal, to complement his power over fire. As well as freezing enemies, this lets you freeze water to create temporary platforms.

TRANSFORMATIONS

By munching on a Power Berry in the *Ghostly Adventures* games, Pac-Man can transform into a robot, a chameleon and even a bouncy rubber ball in order to beat baddies and solve puzzles.

AHEAD OF THE PAC



HIGH SCORES AND COMPETITIVE PLAY ARE AT THE HEART OF THE ARCADE EXPERIENCE, AND PAC-MAN OFFERS ALL THE THRILLS YOU'D EXPECT IN THAT REGARD. WE SPEAK TO JON STOODLEY, ONE OF THE FEW PEOPLE TO HAVE EVER PLAYED A PERFECT GAME OF PAC-MAN, ABOUT THE GAME'S COMPETITIVE SCENE

As an arcade classic with a strong following today, *Pac-Man* has a competitive scene. Unlike many of them, it has a defined maximum score – 3,333,360 points. To achieve it, you have to get every bonus fruit and munch all four ghosts with every power pellet, on every single stage up to the level 256 kill screen, without losing a life. Few have ever achieved this monumental feat, but Jon Stoodley is one of them.

How did you first encounter *Pac-Man*, and what did you think of it?
Pac-Man arrived at the arcade in early 1981 but initially I had no interest in it. I was playing *Berzerk* and *Space Invaders* then, and it was my brother who got me into playing two-player games with him. He was a 100,000-point player, and within about a month, I passed his scores. A group of lads in the arcade were all competing for the highest score, and I then concentrated on *Pac-Man*.

» Jon's achievement earned him a place in Twin Galaxies founder Walter Day's trading card collection.

Why did you choose to master *Pac-Man*?
In the summer of 1982, my high score was over 280,000 and I witnessed an American guy play to over a million points with a big crowd watching. Las Vegas arcade in Liverpool was the premier place to meet up at the weekend for gamers, as they had all the latest releases. Watching someone easily beat my high score spurned me on to push myself as far as I could.

Were there any resources that helped you towards your goal of a perfect game?
Tim Balderramos of the US is one of the 'perfect club' and he shared some freehand grouping strategies with me live on a Twitch TV stream. I didn't have any intention to go for the perfect game, but my good friend and fellow Brit Tony Temple (*Missile Command* tournament world record holder) asked me if I thought I could reach perfection on *Pac-Man*. We'd been to the US several times and played live in Funspot during the tournament days, and we really enjoyed representing the UK there. The only gamers in the 'perfect club' were from North America, so the challenge was on.

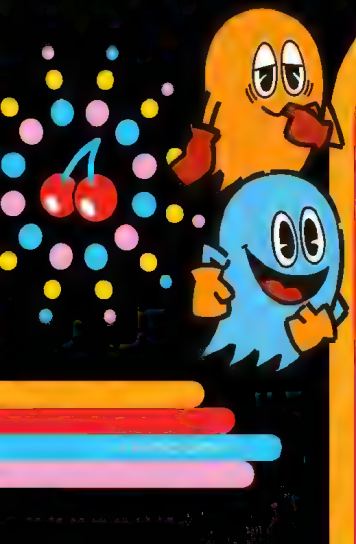
How long did you have to practise to get to the point that you could achieve a perfect *Pac-Man* game?
I only played and practised on my original *Pac-Man* cab, and only live. Either at one of the events around the UK, live in the US, or live on Twitch TV. This wasn't to be elitist, I was, in fact, competing with myself from back in the day. It had to be done the same way as it was at the arcade. It took about two years in total to achieve the perfect game, which happened at the Play Expo event at the Winter Gardens in Margate, August 22 2015.

How did you feel when you finally achieved the maximum score?
Tired... that weekend, I played for 14 hours in total. On the Saturday, I had a perfect run break down at 2.2 million. When I finally realised that I'd achieved it, of course, I felt elated, but I guess the sacrifices and total commitment needed to achieve the perfect game sort of moulds you into a calm and totally concentrated gamer. Calm on the outside, keeping it cool inside.

In some games, competition over high scores can get quite fierce. How would you characterise the *Pac-Man* high score scene?
The *Pac-Man* scene has always been pretty competitive, but not like the shenanigans seen for the likes of *Donkey Kong*, thank heavens. I did have to pay my dues competitively in the US I guess, driven on by the intention to achieve perfection. Playing at an elite level always has its drawbacks I guess, for me personally, the dedication and commitment to be included in the perfect club had me laser-focused on just one thing. Because I was probably considered an 'outsider' playing abroad, the pressure to perform live was there for sure. Thing is though, I really had an

TIMELINE

THE KEY DEVELOPMENTS IN THE HISTORY OF PERFECT PAC-MAN PLAY



1 JULY 1999
Canada's Rick Fothergill sets a world record of 3,333,270 points, missing a perfect score by just 90 points.

3 JULY 1999
Notorious score-chaser Billy Mitchell hits 3,333,360 at the Funspot Arcade – the first recorded perfect game.

31 JULY 1999
Rick Fothergill submits his own perfect score to Twin Galaxies – the oldest standing score for the game.

16 FEB 2000
Then-holder of the *Ms Pac-Man* record Chris Ayra becomes the third person to achieve a perfect *Pac-Man* game.

4 DEC 2004
Tim Balderramos records his own perfect score, adding to his *Commando* and *Tunnel Runner* records.

21 JULY 2005
Donald Hayes also clocks a perfect score, taking a mammoth five hours, 24 minutes and 46 seconds to do so.

27 JUNE 2008
The first perfect score under 'Turbo' speed rules is submitted by Donald Hayes, marking another perfect run.

» Jon takes some time to give an interview during a more recent retro gaming event.

advantage as all my *Pac-Man* performances were live and in front of a crowd. I thrive on this and playing alone has never interested me.

Pac-Man has a known maximum score – what effect does that have on the game's competitive scene?

There's always going to be gamers attempting perfection on *Pac-Man*, it's an icon. The competitive scene for *Pac-Man* will always be there, but like it was in the arcades I guess. Gamers of all ages trying to beat that 'high score', playing two-player games like I did in the Eighties, and laughing and enjoying it on the way. Competitive *Pac-Man*, like attempting perfection etc, isn't a real reflection on the original game's magic. There's little fun with elite gaming, as it can be pretty solitary and insular. Only 100% focus, every game, every time. Nothing less.

Do you have any expert tips that a novice _Pac-Man_ player could practise to improve their own scores?

Remember that sometimes the ghosts aren't following you. They go straight to their respective corners when you press start, then reverse to pursue Pac-Man. It was with this knowledge, the early players utilised patterns to avoid the ghosts. Always try and 'pre-turn' before a corner or junction. That is to move the joystick in the direction you'd like to go a fraction before that turn. This way, there's no pausing, allowing the ghosts to gain ground on you. Always log your high scores and raise your personal bar. Try and relax your wrist. Pressing hard on the joystick doesn't give you extra speed! Most of all, enjoy the experience. Classic videogames were really a blank canvas with the basic features and rules laid out for you. Every classic game has many layers for the gamer to discover and evaluate for themselves. That's the beauty of these 40-year-old games, just use your imagination and get immersed. There's really nothing quite like retro gaming. ▶

PAC PEAKS

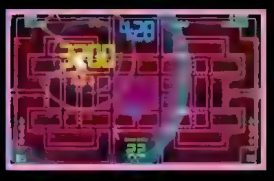
SOME PAC-MAN WORLD RECORDS THAT YOU MIGHT ACTUALLY BE ABLE TO BREAK

PAC-MAN

FORMAT
Atari 2600

SCORE
325,116 (Ken Anderson)

It's not the most authentic conversion, but this was a popular cartridge in its day. This score, set on an NTSC console using Game 1, Difficulty B settings, has stood since 1983.

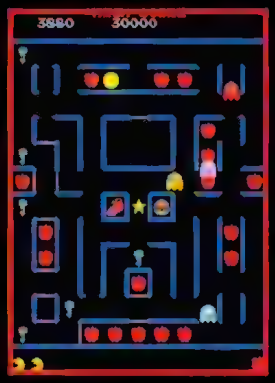


PAC-MAN CHAMPIONSHIP EDITION DX

FORMAT
PlayStation 3

SCORE
718,900 (Ethan Daniels)

This game was designed for competitive play, and the king of that in the Championship | Score Attack (five mins) category is Ethan Daniels, whose record has stood since 2015.

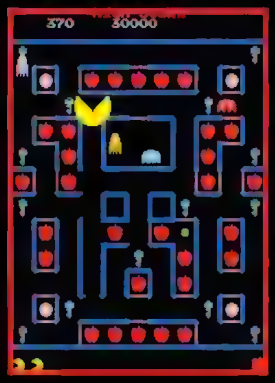


SUPER PAC-MAN

FORMAT
Arcade

SCORE
12,111,640 (Robbie Lakeman)

While this record is relatively new, being set as recently as October 2015, topping it will be tough – the holder is a noted competitive gamer and former *Donkey Kong* champion.

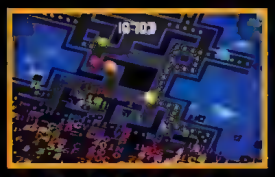


MS PAC-MAN MAZE MADNESS

FORMAT
PlayStation

SCORE
24 seconds remaining (Matthew Felix)

The maximum score on the 'Cleopactra' stage has already been achieved, but this time trial record is up for grabs, after Tom Duncan's original 2008 record was broken in 2018.



PAC-MAN 256

FORMAT
PlayStation 4

SCORE
155,875 (Marc Cohen)

This game is available on a variety of formats, but the version on Sony's console is the most contested. Marc set his record in October 2018, just days after the previous holder.

11 AUG 2009
David Race submits his first perfect run to Twin Galaxies. He does another under Turbo settings in December.

14 OCT 2009
Chris Ayra's fastest completion record is broken by Rick Fothergill, who finishes a perfect game in 3:35:43.

22 MAY 2013
David Race submits a new perfect game record, beating Rick Fothergill by almost seven minutes with 3:28:49.

15-17 NOV 2013
David Cruz completes a perfect game during the weekend of the Kong Off 3, while Twin Galaxies is offline.

13 DEC 2013
Jeff Pickles earns a perfect score using the Turbo speed rules, rather than the standard speed of most records.

2 SEP 2015
Jon Stoodley submits his perfect run from the Play Expo in Margate, which took place on 22 August 2015.

12 APRIL 2018
Twin Galaxies disqualifies Billy Mitchell from all games after an investigation into a *Donkey Kong* score.

5 JULY 2019
Billy Mitchell achieves another perfect game of *Pac-Man* at Funspot, streamed live on his Twitch channel.

PAC TO THE FUTURE

PAC-MAN'S HUGE SUCCESS IN THE WORLD'S ARCADES MEANT THAT SEQUELS WERE INEVITABLE. WHAT'S INTERESTING, HOWEVER, IS THAT WHILE SOME FELT RATHER OBVIOUS, NAMCO FOUND PLENTY OF WAYS TO ENSURE ITS YELLOW MASCOT COULD ADAPT TO WHATEVER NEW GENRES WERE THROWN AT HIM

One of the reasons why Pac-Man has become such an iconic character is because ultimately he's a very versatile one. While he spent his early years confined to mazes, he soon broke beyond those blue walls and tried a variety of different genres, including platformers, puzzle games and even kart racers.

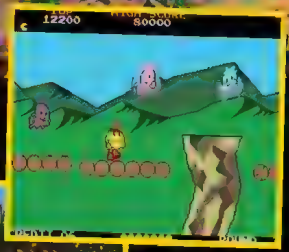
Initially, changes in the early days of Pac-Man's career were subtle. *Ms Pac-Man* (originally a different game called *Crazy Otto*) added a partner for Pac-Man, four mazes, moving fruit and other enhancements, while *Pac-Man Plus* felt like something of a step back, adding little to Toru Iwatani's original game design. While *Super Pac-Man* introduced the collecting of keys which unlocked the doors to the fruit you had to clear on each stage and allowed Pac-Man to turn into Super Pac-Man, it was still fundamentally similar to earlier games.

Pac & Pal was another maze variant from Namco which introduced a helper character, while Bally Midway released all manner of games, including a quiz game (*Professor Pac-Man*) and a pinball hybrid called *Baby Pac-Man*. Namco was far from impressed with these unauthorised releases, however, and its partnership with Bally Midway soon dissolved.

1984's *Pac-Land* was the first big significant jump for Pac-Man as he sprouted arms and legs and turned his attention to the platform genre. It worked extremely well and still held elements of the core games, including the ghosts, fruit and Power Pill. The jumping skills Pac-Man picked up in *Pac-Land* led to them becoming a key mechanic to 1987's isometric maze hit *Pac-Mania*. Pac-Man's arcade career then went quiet with no significant release appearing until 1996's *Pac-Man VR*, which allowed up to four players to compete in a virtual environment.

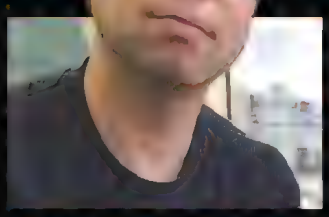
» [iOS] *Pac-Man 256* began life on mobile devices but was soon ported to consoles and computers.

» [GameCube] *Pac-Man Fever* proved that having Pac-Man in your game wasn't an indication of quality.



» [Arcade] *Pac-Land* highlighted that Pac-Man could easily tackle different genres, while keeping its core credentials.

» [PlayStation] *Pac-Man World* was well-received and led to two further sequels.



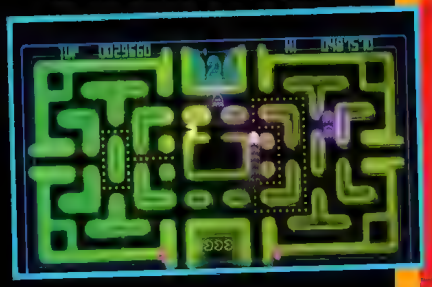
REINVENTING PAC-MAN

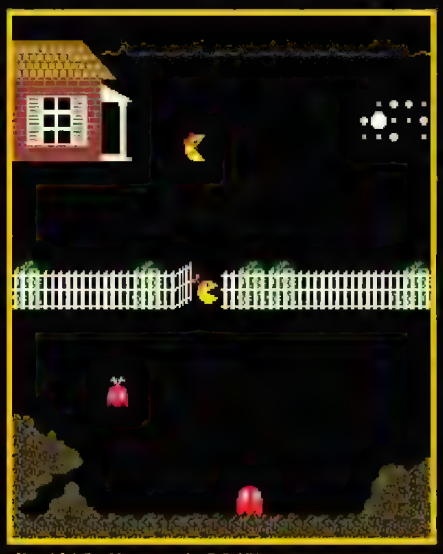
TADASHI IGUCHI ON CREATING THE PAC-MAN CHAMPIONSHIP EDITIONS

Tell us about the sub-series' origins...
We developed *Championship Edition* under the concept of creating a commemorative 25th anniversary game that would befit the Microsoft-sponsored *Pac-Man* World Championship tournament. This led to designing the game so that it would be quick and speedy (to allow game results to be determined in a short amount of time), while ensuring that player skills would directly affect the score, thus making it perfect for high-level players.

Was that tricky to achieve?
There were many processes that needed to be cleared before coming up with the game's design, but for this game we needed to ensure that the design allowed nonstop play so that it would be suitable for the tournament.

How did you come up with the evolving maze?
We didn't want the players and audience to constantly see our famous coffee break demo scene after each competition. Hence, we invented a system where the maze can be cleared by halves to ensure that the game wouldn't stop intermittently. This design, in turn, allowed us to evolve the maze in real time with the game progress.





» [Arcade] *Jr Pac-Man* was another Bally Midway game that wasn't authorised by Namco.

While Pac-Man would not return to arcades until 2011 he was still very much in the public's eye thanks to numerous conversions of his earlier arcade games during the Eighties and a number of spin-offs and new franchises that appeared on home systems in the Nineties. A selection of different compilations also kept gamers aware of Namco's yellow mascot during the Nineties and beyond. Games like 1993's *Pac-Attack* proved *Pac-Man* was perfectly at home in the puzzle genre, while 1994's *Pac-Man 2: The New Adventures* was an interesting point-and-click experiment. *Pac-Man World*, released in 1999, marked a significant evolution as it took place in 3D environments and gave Pac-Man the ability to bottom bounce on enemies and use a rev roll to activate platforms or move up ramps. It was popular enough to spawn two sequels.

2002's *Pac-Man Fever* was a *Mario Party* clone, with Pac-Man and his pals navigating board games and taking part in minigames, while 2003's *Pac-Man Vs* was a genius multiplayer game by Nintendo's Shigeru Miyamoto, designed to make use of the GameCube's compatibility with the Game Boy Advance. Equally impressive was the sheer ingenuity of *Pac-Pix* and *Pac 'N Roll*, both released in 2005 for Nintendo's DS. One allowed players to draw Pac-Man and guide him to eat ghosts by drawing walls and other items, while the other saw you navigate large areas by stroking Pac-Man with your stylus and prodding ghosts to repel them.

Perhaps the most significant sequel in *Pac-Man*'s colourful history was the excellent *Pac-Man Championship Edition* as it marked the last *Pac-Man* game that Iwatani designed. Released in 2007 for Xbox Live Arcade on Xbox 360, it featured the essence of *Pac-Man*, but was designed purely for competitive play and score chasing. Its popularity with gamers led to a sequel which appeared in 2016. Add in a return to arcades in 2011 with *Pac-Man Battle Royale* and countless mobile games like *Pac-Man 256* or appearances in games like *Super Smash Bros Ultimate*, and it's very easy to see why Pac-Man has remained a constant presence for the last 40 years – he's never really had the chance to go away. ▶

JOINING THE PAC

THE OLIVER TWINS ON CREATING PAC-MAN WORLD 3

How did you get to come to work on *Pac-Man World 3*?

Philip Oliver: We [Blitz Games] were well-known for family-friendly, character-based games. One of those games was the very popular *Frogger 2: Swampy's Revenge* that I'm sure helped convince Namco we were a good fit for developing *Pac-Man World 3*.

What was it like making a 3D *Pac-Man* game?

Andrew Oliver: When working on and enhancing any brand, we looked at the core brand values. In the case of *Pac-Man*, that's about being chased through a world, eating dots and then finding a Power Pill that turns the tables on those classic ghosts. Beyond that, we could go wild and imaginative, dreaming up all kinds of settings, additional characters and special moves.

What guidance did Namco give you?

PO: Make it much better than *Pac-Man World 2*, get it out on PlayStation 2, Xbox, GameCube, PC and PSP in a fixed time for a fixed budget. We had to deliver a design overview, schedule and budget, and thankfully we won out against our rival bidders. It meant a lot of work, a tight deadline and minuscule margins, but still, it was an honour and privilege to create and carry on the legacy of *Pac-Man*.

Whose decision was it to have Pac-Man talk?

AO: We've always been massive fans of adding voices to all our characters, and Pac-Man was going to get the same treatment. We organised everything to do with this.

What elements of *Pac-Man World 3* are you most proud of?

PO: It captured the spirit of *Pac-Man*, but in a massive and imaginatively detailed world. We introduced a great number of new mechanics like the spin attacks, punching, electro-shocking, super stamps, wall jumps, fence climbing, pole swings, dot trails and the ribbon loop. Personally, I think the worlds were generally too large, but publishers always insisted 'big was better'.

Were you involved with the canned GBA release?

AO: Didn't know there was one. We didn't develop GBA games, so it wasn't awarded to us. I shouldn't pretend that our development didn't have major problems created by Namco. Our developers back at Blitz would hate me to paint a picture of bliss, because sadly it wasn't. We shipped a great game we're all proud of, but many would say it was despite Namco's interventions, and sadly we lost a lot of money making it.

THE BIG BIRTHDAY BASH

SUB-CHIEF PAC-MAN OFFICER EMEA, LEE KIRTON ON PAC-MAN'S 40TH

Why has Namco planned so many *Pac-Man* events?
Pac-Man is one of the most important characters in the history of videogames, has inspired many generations and has an awareness rate of over 97% worldwide. For many years we have celebrated *Pac-Man*'s birth dates and during their milestones we have created incredible games, social media activations and events.

How is Namco raising awareness of *Pac-Man*'s 40th birthday?
We have huge licensing awareness with great brands from Paco Rabanne to Quarter Arcades. We are also planning a European tour with something very special... The US have some incredible ideas as well which will be revealed soon.

Will any *Pac-Man* talks be taking place?
I have been doing a number of school and university tours where I present the history of our industry and *Pac-Man*'s history since 1980 until today... I talk about Pac-Man a lot in schools to inspire kids to come up with their own character creations, working in teams... I have seen hundreds of great game ideas that focus on the environment and positive things in the world.

Why does Pac-Man remain so universally popular?
It's the first ever videogame character. Pac-Man, as well as Inky, Blinky, Pinky and Clyde, are loved worldwide. The game is simple, yet addictive and other games like *Pac-Man Championship Edition* and *Pac-Man 256* help to keep awareness broad and everyone across the world, young and old, playing. Pac-Man has appeared in *Wreck-It Ralph* and many TV shows and movies and remains the most loved character out there. The key point is that kids know and like Pac-Man. Adults have a nostalgia attachment and the character design is so special. *Pac-Man Stories* is also on [Amazon] Alexa, and we designed this to be interactive storytelling for kids where they learn and make important decisions. The key for us is to continue to bring happiness to everyone with our wonderful character.

PAC OF ALL TRADES

NAMCO'S MASCOT IS ONE OF THOSE FEW GAMING ICONS THAT HAS MANAGED TO CROSS OVER FROM VIDEOGAMES AND ACHIEVE GLOBAL SUCCESS ACROSS A VARIETY OF DIFFERENT FORMATS. HERE WE EXAMINE HOW PAC-MAN WENT BEYOND BEING A VIDEOGAME PHENOMENON TO BECOME A GENUINE WORLDWIDE SUPERSTAR

If you ever needed further proof of *Pac-Man*'s success simply type '*Pac-Man* merchandise' into Google. You'll be inundated with memorabilia, both new and old, from *Pac-Man* costumes, to lamps and cuddly toys. *Pac-Man*'s appeal in the Eighties was readily apparent to Namco and the astute company soon lined up a bunch of merchandising opportunities. "I have a pretty extensive collection of vintage *Pac-Man* ephemera," admits Van Burnham, the author of *Supercade: A Visual History Of The Videogame Age*. "Lunchboxes, albums... the phone is pretty amazing. My favourite, though, are the *Pac-Man* 'Collector's Series' glasses sold at Arby's, circa 1982, which I've compulsively collected an extensive set of and use to drink the 18-Year Macallan I keep in the Supercade. Classy."

» Van Burnham is the author of *Supercade: A Visual History Of The Videogame Age*. A sequel, focusing on 1985-2001, will hit Kickstarter on June 1.

Van, like many gamers, first fell in love with the arcade game as a youngster and that love grew as surely and steadily as *Pac-Man*'s global reach did. "I was infected with '*Pac-Man* fever' when I was around ten years old," Van continues. "There was a corner store down the block from my house that had a *Pac-Man* machine... I memorised the patterns and got so good that I would win money playing against adults at bars with my parents. It was a different time [laughs]. I was absolutely in love with that game, the simplicity of it. It was pretty apparent even in the early Eighties

"THE FACT THAT THE CHARACTERS WERE SO ICONIC AND RECOGNISABLE MEANT THAT IT TRANSLATED WELL TO POP CULTURAL APPROPRIATION..."

VAN BURNHAM

SPREADING PAC-MAN FEVER

COWRITER JERRY BUCKNER TALKS US THROUGH HIS 1981 MUSIC HIT

Why did you create *Pac-Man Fever*?
We first saw a *Pac-Man* game in a restaurant in the fall of 1981 and got hooked like everyone else. We were doing a lot of commercial jingles at the time, and we thought it might help our business if we could get some local radio play. But after hearing it, the management company we were with decided to release it on their local record label. After the first play the request lines at the radio station exploded and it took off from there.

Did you play much *Pac-Man* on its release?
We played a lot, actually, before the release. Occasionally, we would make an appearance at an arcade and they would always want us to play *Pac-Man* against their best players and we rarely did very well. After the record came out we didn't play as much, but I still love the game.

Why do you think the song became so popular?
Everyone of all ages was playing the game and our song captured that excitement. The opening line, 'I gotta pocket full of quarters and I'm headed to the arcade,' summed it up and it hit a nerve worldwide.

Why do you think *Pac-Man* has become such a cultural icon?
It was a special time and *Pac-Man* represents that time to millions of people. It continues to appeal to all ages and genders, like Coca Cola and The Beatles. It came along at the perfect time and shows no signs of slowing down.

What led you to cowrite a book about *Pac-Man Fever*'s creation?
I was approached by a publisher last year. I get a lot of requests for interviews and people are always curious about how it all came about, so I thought it was a good idea. There were actually two other writers involved. I enjoyed the process and digging up all those memories. I think people will enjoy it. It's a quick read and has a lot of behind-the-scenes stories along with links to tons of music and pictures.

that it transcended just being a game, it was a cultural phenomenon."

If you need further proof of *Pac-Man*'s durability outside of the arcades you only need to look at how *Pac-Man* has permeated pop culture for the last four decades, although *Supercade*'s author feels good timing also helped Namco's mascot. "*Pac-Man* exploded in 1981, at the dawn of the 'Golden Age' of videogames, and as a result its success was inextricably linked to our memories of that era," Van tells us. "The fact that the characters were so iconic and recognisable meant that it translated well to pop cultural appropriation... the yellow sphere, the dots, the ghosts, the music... it was burned into the cultural consciousness so deeply that it immediately transports us to that moment in time."

» Pac-Man plays a prominent role in this Adam Sandler movie. It grossed $244.9 million and features a cameo from Toru Iwatani as a repairman.

In addition to a wealth of merchandise that ranges from lunchboxes and cereal, to doormats and watches, *Pac-Man*'s cultural grip has also been cemented by a large number of film and TV appearances. Pac-Man himself has appeared seemingly endlessly on our screens, big and small, popping up multiple times in *Family Guy*, *The Simpsons* and *Robot Chicken*; stealing laughs from the audience when hero Peter Quill turns into him at the climax of *Guardians Of The Galaxy 2*, and taking the form of an alien invader in the 2015 Adam Sandler 'comedy' vehicle, *Pixels* to name just a few.

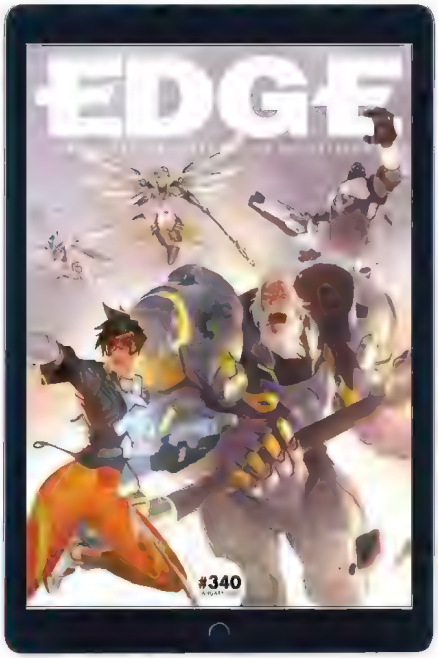
And then of course there was the *Pac-Man* TV series, which launched in 1982 and ran for two seasons. Developed by Jeffrey Scott and produced by the hit animation studio Hanna-Barbera Productions, it proved extremely popular on release and its influence could be seen in later *Pac-Man* games like *Pac-Land*, which was created in response to the cartoon's success. "I remember not being much of a fan when it first came out," remembers Van, "but I've since developed a sincere affection for it... not unlike the *Super Mario Bros* movie. I'm a purist and am still adjusting to 3D representations of classic 8-bit characters." While we're on the subject of 3D it's worth mentioning *Pac-Man And The Ghostly Adventures*, a CGI animated kids show, which began in 2013 and ran for three seasons and spawned two videogames.

The fact that Pac-Man can spawn a hit cartoon decades after he was first conceived is further proof of the character's global appeal. But then we'd expect nothing less from gaming's first true star. ★

» In addition to glowing at different intensities, this officially licensed Pac-Man lamp also includes authentic sound effects.

SUBSCRIBE TODAY

AND GET A YEAR'S PRINT OR DIGITAL SUBSCRIPTION FOR HALF PRICE



EXCLUSIVE OFFER!

STUNNING SUBSCRIBER-ONLY COVERS
SAVE MONEY ON THE COVER PRICE
DELIVERED DIRECT TO YOUR DOOR

JUST £9.50 EVERY 3 MONTHS! FOR PRINT

SAVE UP TO 54%

SEE THE FULL OFFER AND **ORDER ONLINE** AT

www.myfavouritemagazines.co.uk/half20g

TERMS & CONDITIONS *4 x quarterly payments at the stated price, after which a step up to the standard subscription price. Gift is redeemable against both print and digital subscriptions. Prices and savings are compared to buying full priced print and digital issues. You will receive 13 issues in a year. You can write to us or call us to cancel your subscription within 14 days of purchase. Payment is non-refundable after the 14 day cancellation period unless exceptional circumstances apply. Prices correct at point of print and subject to change. UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) or are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). For full terms and conditions please visit bit.ly/magtandc. Offer ends **31/08/2020**

Hardware Heaven

Mark III

» **MANUFACTURER:** Sega » **YEAR:** 1985
» **COST** [illegible] launch), £160+ (today, boxed), £8[illegible]

Although the SG-1000 surpassed Sega's initial expectations following its launch in 1983, the console's fortunes quickly faded due to competition from Nintendo's technically superior Famicom. Sega's response was the Mark III, an upgraded machine with considerably improved graphical capabilities and more RAM as well as text with compatibility and existing Sega 8-bit games and peripherals. While these upgrades helped Sega to maintain steady [illegible] sales, they didn't contribute to a noticeable uptick in the company's fortunes and the hardware achieved greater success overseas as the Master System. Japan would be the first region where the format was discontinued, with only two games released after the October 1988 launch of the Mega Drive.

The console's design is close to that of the SG-1000 II, to the point that they can easily be mistaken for one another. The Mark III inherits its predecessor's colour scheme and basic form factor, including the joypad holders on the sides and expansion port on the front. The most notable feature is the new card slot, which enables users to play Sega My Card games without the need for the Card Catcher peripheral. The console also includes a port for composite and RGB output, making it far more friendly to importers than its predecessors. ★

Mark III fact

■ Some Mark III consoles were bundled with the Telecon Pack – a low-powered transmitter and receiver bundle that enabled the console to be wirelessly connected to your TV.

PROCESSOR: 8-BIT Z80 CPU (3.58 MHZ)

ESSENTIAL GAME

Megumi Rescue

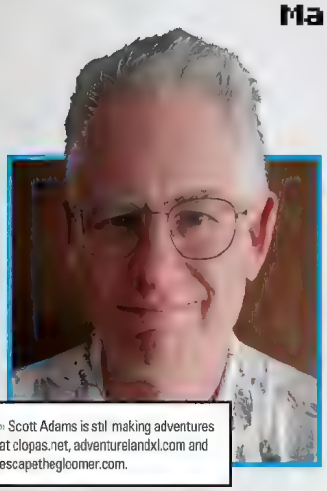
Of the very few Mark III games to remain exclusive to Japan, this is one of the most exciting, as there's nothing that plays like it in the western library. Using the Paddle Controller peripheral (itself a Japanese exclusive), you control a pair of rescue workers with a trampoline, bouncing a hero skyward in an attempt to rescue people from a burning building. It's compatible with the FM sound unit too, just to add some extra exotic flavour to your experience. Oddly, it's based on an arcade game, but the coin-op version never actually received a full release.

SYSTEM SUPPLIED BY **EVAN AMOS**

THE EVOLUTION OF QUESTPROBE

When Marvel Comics decided to get into home computer games it went to the man who developed the first home computer text adventure. Scott Adams remembers how his trilogy of Marvel Questprobe adventures evolved

WORDS BY RORY MILNE



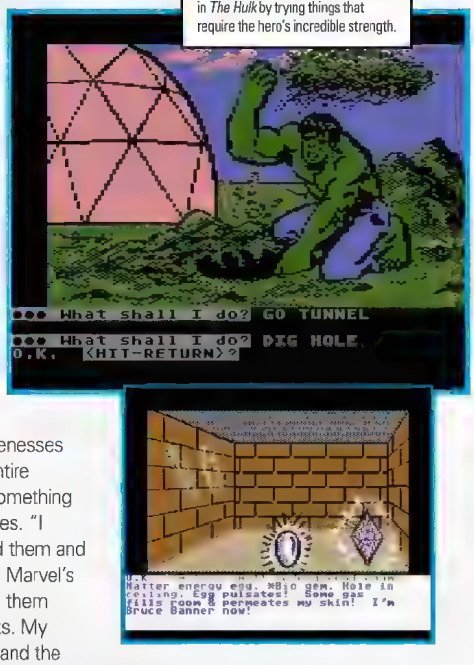
» Scott Adams is still making adventures at clopas.net, adventurelandxl.com and escapetheglcomer.com.

Questprobe was hugely ambitious. Not from Marvel's perspective, 12 comic books over four years was nothing for a firm that by 1983 was publishing upwards of 40 titles a month. However, each *Questprobe* title was to be continued in a computer game, and so Marvel offered this daunting task to the highly prolific Scott Adams, whose company Adventure International had introduced text adventures to home computers in 1978 despite being told that it would be impossible due to the format's lack of memory. Al then spent the following five years developing numerous adventures for countless home systems, which, as Scott explains, put the firm in the perfect position to meet Marvel's demanding schedule. "Adventure International was contacted by the VP at Marvel, Joe Calamari," Scott remembers. "He said he wanted to get Marvel comics licensed into the home computer game market, and that everyone he had talked to recommended Adventure International. After that, I went to Marvel's Manhattan offices, and I met with Joe and Marvel's chief editor Jim Shooter, and we worked out some of the preliminaries of what we would be doing. Marvel gave Al complete carte blanche on design, with its only requirement being that it would vet the art in the games to make sure that it conformed to Marvel's standards."

» [Apple II] The solution to *The Hulk*'s first puzzle is obvious with hindsight, but it requires trial and error.

The design for *Questprobe* would involve Marvel's heroes encountering an otherworldly but also somewhat familiar-looking character in the comics – the Chief Examiner, who would then transfer their likenesses into Scott's games. "The entire *Questprobe* concept was something that I developed," Scott notes. "I wrote the storylines, plotted them and outlined the ideas, and then Marvel's John Byrne and others took them and created the comic books. My desire was that the comics and the games needed to be tied together, so that each would stand on their own, but to get the full story the comic book would have to be read and the game would have to be played. The art for the Chief Examiner was done by Marvel based on photos of me, and it was kind of fun appearing in cameo form in the books!"

Eyebrows were raised, however, when Scott's first pick for *Questprobe* was far from Marvel's bestselling character, so why exactly did the developer choose the Hulk? "I got the same question from Marvel!" Scott grins. "My reason for picking Hulk first was that I wanted to work my way into the *Questprobe* project, as I felt that the first game wasn't going to be as refined as the later ones. Also, I was working on an extended engine that could handle more than two-word sentences and could even provide some animation in the graphic versions, and it wasn't ready in time for *The Hulk*."



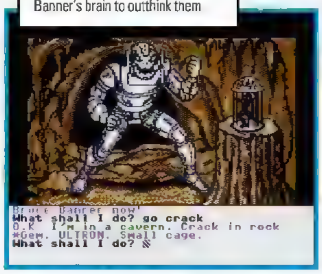
» [Atari 8-bit] Progress can be made in *The Hulk* by trying things that require the hero's incredible strength.

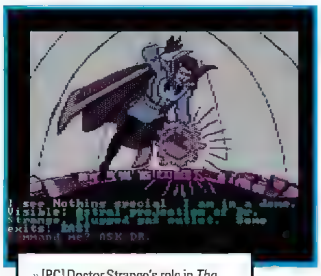
It's arguable that those new to text adventures wouldn't be ready for *The Hulk* either, as its first challenge saw Bruce Banner tied to a chair, with the command to 'Hulk-out' being far from obvious. "The idea of the chair was to get the player used to the idea that they had to solve puzzles to proceed through the story," Scott explains. "And before there could be a Hulk there had to be a Bruce Banner. I didn't want players to spend a lot of time as Bruce, so I needed to put up a situation where they could very quickly convert into the Hulk without having to do much with Bruce. He was also

"I didn't wan
players to sper
a lot of time a
Bruce, so I neede
a situation wher
they could ver
quickly conver
into the Hulk"

SCOTT ADAMS

» [Plus/4] Rather than ordering Hulk to 'smash' foes, you use Bruce Banner's brain to outthink them





» [PC] Doctor Strange's role in *The Hulk* is to give clues. He can't join you on your adventure.

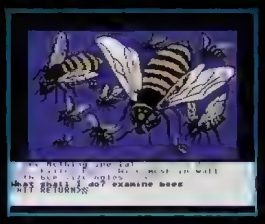
the reason for why the Hulk couldn't always be using his strength, because every superhero needs to have some weakness or there's no story."

Following this line of thinking, Scott created as many challenges for his adventure that required Bruce Banner's intellect as problems that needed the Hulk's brute strength to overcome. "'Hulk Smash! Game Over!' That was just not going to be much fun," Scott reasons. "So this was a puzzle-based game where the player was going to need to solve some things to proceed. The game and storyline grew organically. I put in pieces, and then I saw how inspiration hit me. I liked to try and reuse areas and items as much as possible – due to memory limitations – and I also tried to use items and places that would be recognisable to people without having to supply a lot of words to explain them."

Some of the places in *The Hulk* would become very recognisable; particularly the adventure's near-identical giant domes, where Scott was locating many of the puzzles in his adventure. "It may have been that I *wanted* to make the domes a bit more varied," Scott says of the very

» [ZX Spectrum] Deadly alien ants and Ant-Man appear in *The Hulk*, but how are they connected?

THE EVOLUTION OF: QUESTPROBE



GUIDE TO QUESTPROBE: THE HULK

HOW TO SUCCEED IN THE QUESTPROBE DEBUT TITLE

SPLIT PERSONALITY

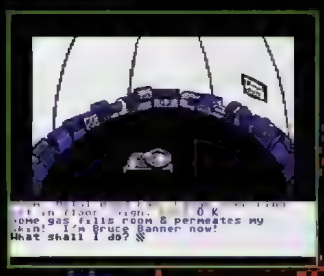
The indoor challenges that only the Hulk can overcome would be much easier if its hero wasn't constantly being sedated with gas and reverting to Bruce Banner. The solution is to find ways to remain as the Hulk just long enough to smash through each of the game's physical obstacles.

BRAINS AND BRAWN

You stay green and angry in *The Hulk*'s outside locations, but as well as feats of strength you also have to use the hero's primitive brain to get the better of foes such as alien ants. You also have to think about where the Hulk's incredible muscles will allow him to look for gems.

FAMILIAR TERRITORY

The domes in *The Hulk* look identical, so it's well worth making a map of the game. It's also worth dropping objects that you can't find a use for next to each dome, using them as waymarkers. Lastly, there's an unmappable recurring hub that warps you between the different domes.

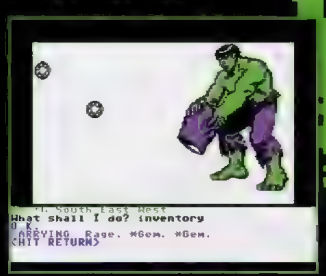


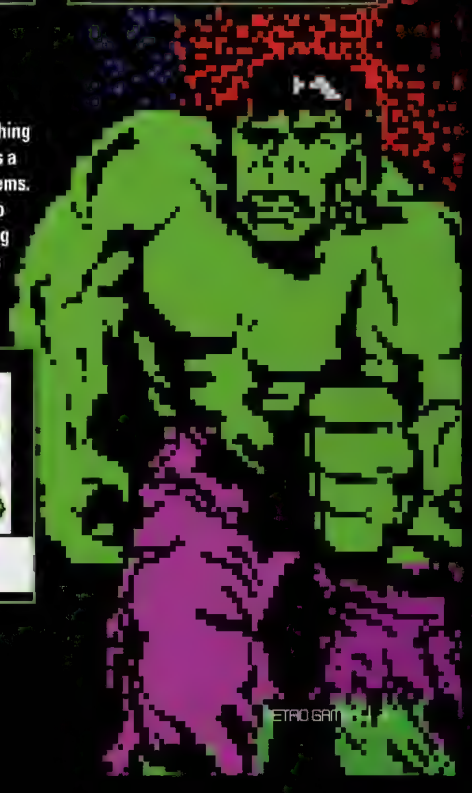
FRIENDS AND FOES

There are just two villains and two heroes in *The Hulk* – the Chief Examiner is neutral, but he does have a gem. Of the bad guys, Ultron can't be beaten by the Hulk, and Nightmare is a useful memory. The Hulk's ally Doctor Strange provides hints, and Ant-man helps out with a challenge.

TREASURE HUNT

Aside from puzzle solving and smashing obstructions, *The Hulk* gives players a secondary objective of collecting gems. These can literarily be anywhere, so as well as nabbing the ones left lying around you have to examine objects and explore scenery to get all of these precious stones.





> "Memory limitations meant that if I was giving Spidey a lot of enemies I needed to put without a lot of rules taking place"
>
> SCOTT ADAMS

GUIDE TO QUESTPROBE: SPIDER-MAN

HINTS ON TACKLING SPIDEY'S CHALLENGING MISSION

ROGUES' GALLERY

There are many classic supervillains in *Spider-Man*, and you need to get a gem from each one. Their defeat depends on using their unique powers against them, or counteracting those unique abilities. So for example, you could find a way to return the Lizard to his harmless human form.

WALL-CRAWLER

Spider-Man really embraces its hero's powers – you can even spend the whole game on the ceiling, as long as you drop down to the floor to solve certain puzzles. Crawling up elevator shafts and along air vents is essential, as is Spidey's webbing, but you have to mix it up yourself.

SCIENCE GEEK

As well as making the aforementioned webbing, you have to put Peter Parker's biophysics degree to good use in *Spider-Man* to create a cure for the Lizard. Luckily, the Daily Bugle – where the game takes place – has a fully equipped chemistry lab that's perfect for comic book science.

DAZED AND CONFUSED

The main villain in *Spider-Man* is Mysterio, and his illusions provide some of the game's best puzzles. He controls an entire level of the Daily Bugle, which appears to have an outside wall with a floor and ceiling, and a maze of ducts, where you can literarily go around in circles.

WITH GREAT POWER...

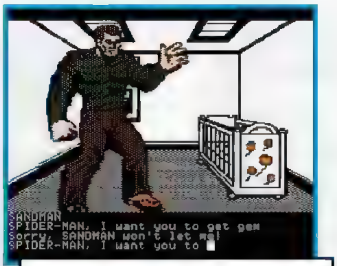
You can't defeat the superpowered opponents in *Spider-Man* by hitting them, even when you manage to land a punch it has no effect. You can, however, use the hero's spider strength to force open elevator doors, and you can knock out Electro, as long as you don't lay a finger on him.

similar geometric structures. "I may have just wanted to give the players someplace to move around. I tend to write my games organically as the story develops in my mind. I introduce places and items and simple puzzles, and then I build forward and then come back and expand on the original parts as needed."

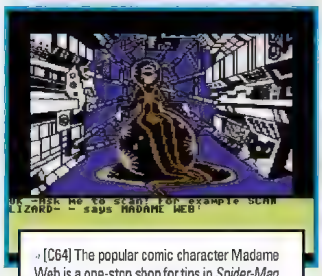
Of course, as well as locations, *The Hulk* also needed characters, so Scott added heroes Doctor Strange and Ant-Man to his game, but for technical reasons they couldn't join the titular protagonist on his adventure. "That would have far exceeded the capabilities of the computers we were targeting at the time," Scott points out. "*The Hulk* still needed to fit into 16K on the TRS-80. Also, it was based on the original version of my game engine, and so that would have not have been easy to implement."

As well as team-ups, another aspect of the Hulk's comics had to be dropped – his mile-long leaps from place to place, although Scott *was* able to replicate Spider-Man's wall-crawling when he started work on his second *Questprobe* adventure. "Hulk being more of a smash-and-jump type of character, there wasn't much room for that type of exploration," Scott observes. "I could have had him do that, but that might have meant way too many outside areas. Also, how would I have kept him within the game? Spidey crawling around inside a building was way easier to manage, and I put that in because it fitted Spidey well."

Like he had with the Hulk, Scott devised a mixture of brainteasers



» [Apple II] Like many villains in *Spider-Man*, you need to exploit Sandman's weak spot to get his gem.



» [C64] The popular comic character Madame Web is a one-stop shop for tips in *Spider-Man*.

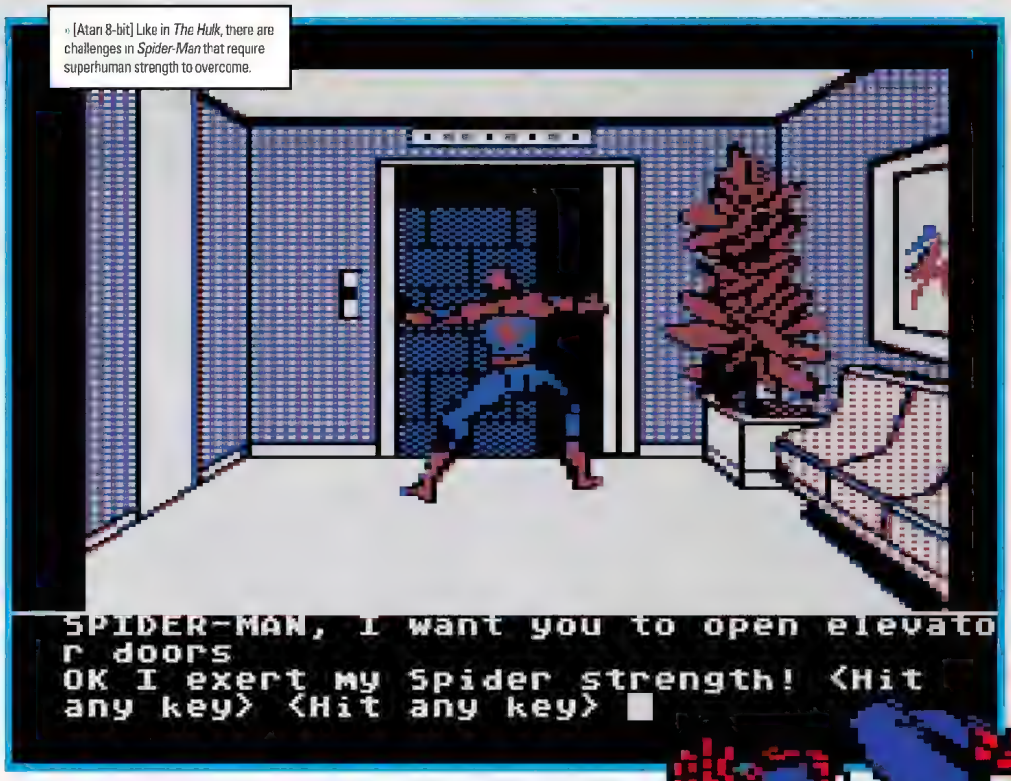
for the science graduate behind Spider-Man's mask – Peter Parker – and power-related challenges for his heroic persona. "The idea was that to solve the puzzles you needed to understand the character's powers," Scott reviews, "and I was crafting a critical-thinking game, so that was also taken into account. The computers of the day were the main limitation. The game could only deal with a limited set of vocabulary and possible responses. So the situations had to make sure those limits were not exceeded."

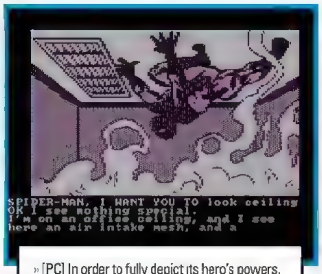
Less limited, however, was the number of supervillains in *Spider-Man*, thanks to a new adventure engine and Scott hitting the books. "Again, this is why I started with *The Hulk* – the version of the engine being used," Scott remarks. "But I switched engines with *Spidey*, and so I was able to do a lot more. I had access to the original version of the Marvel Universe encyclopaedia before it was published, and I spent a lot of time reading it as well as many, many Marvel comics. I read every single one each month as I was working to immerse myself in Marvel's universe."

But despite managing to fit a whole raft of costumed foes into his latest adventure, Scott tasked Spidey with simply relieving them of gems, often without a fight, not even a text-based one without illustrations. "It was down to memory limitations," Scott recalls. "Having those memory limitations meant that if I was giving Spidey a lot of enemies to overcome I needed a way to do it without having a lot of battles taking place. So *Spider-Man* had to be structured as a puzzle game. Also, adding extra text in one place would have meant removing text from somewhere else, so it was an extremely tough balancing act that I had to do."

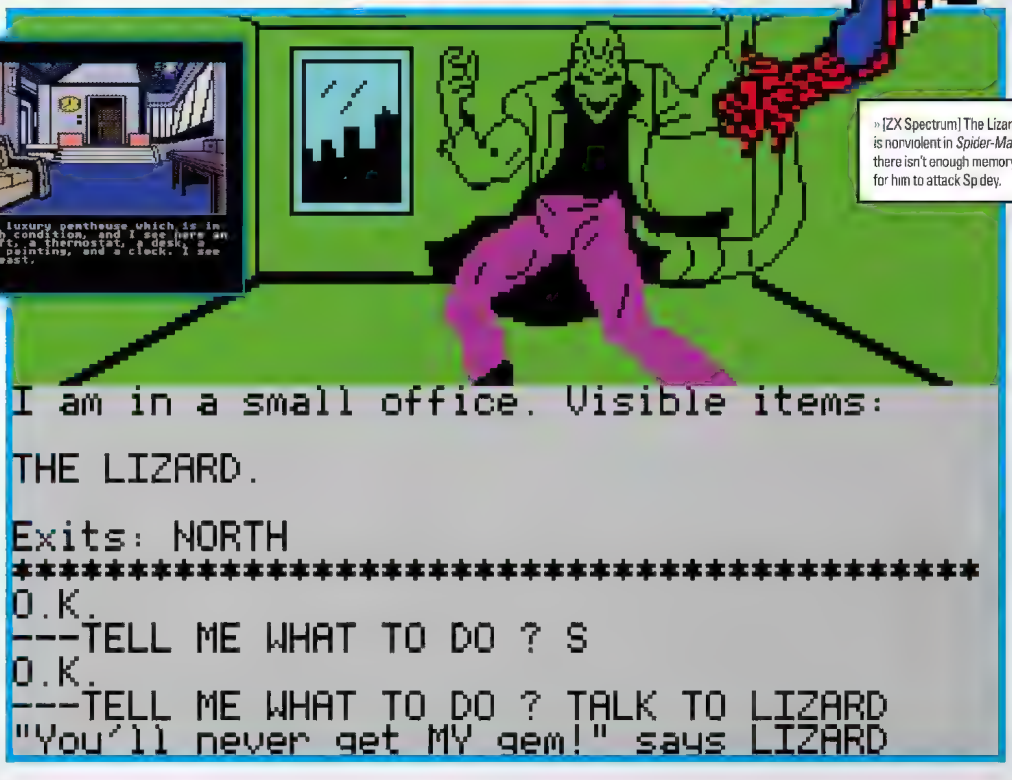
Additional balancing was required when incorporating in-game clues, but thankfully a character from *Spider-Man*'s supporting cast was perfectly suited to give players tips. "I found Madame Web fascinating,"

» [Atari 8-bit] Like in *The Hulk*, there are challenges in *Spider-Man* that require superhuman strength to overcome.

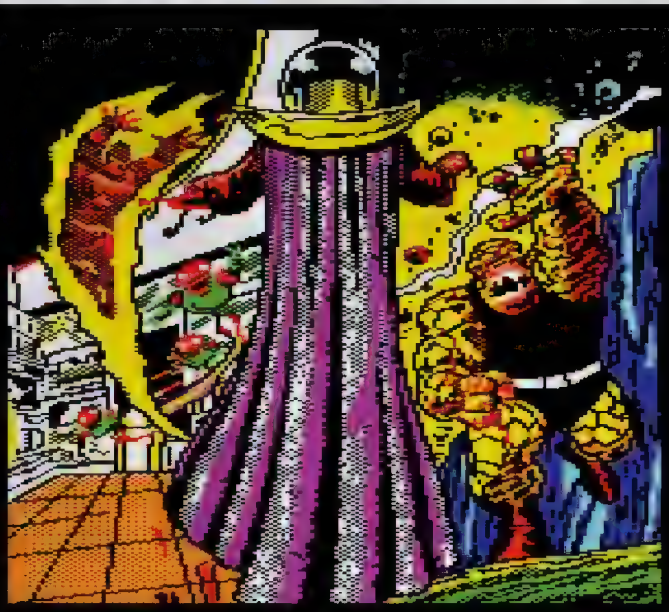




» [PC] In order to fully depict its hero's powers, there are puzzles on the ceilings in *Spider-Man*.



» [ZX Spectrum] The Lizard is nonviolent in *Spider-Man*; there isn't enough memory for him to attack Spidey.



GUIDE TO QUESTPROBE: THE HUMAN TORCH™ AND THE THING™

TIPS ON THE FANTASTIC THIRD QUESTPROBE ADVENTURE

TWO'S COMPANY

The switching between the characters in *The Human Torch And The Thing* has one obvious drawback – if one hero dies then it's game over. This means that before you switch you have to make sure that the protagonist you're leaving behind is in a position where no harm can come to them.

» [Apple II] The third *Questprobe* adventure starts with the Thing being pulled to the bottom of a tar pit.

» [Atari 8-bit] *The Human Torch And The Thing* features an extensive cave system with no natural light.

> "It was challenging, but I had a lot of fun coming up with the puzzles. It had to feel like it was a sandbox, but of course it wasn't"
>
> SCOTT ADAMS

Scott enthuses, "and I thought her web of connections would prove useful. She was a clairvoyant and she had precognition, so this was a perfect role for her. She was there to help the player as they saw fit. Some playtesters used her a lot, others not so much, and it was more fun than having a help system just built into the game. Here you had a character to interact with."

After moving onto his third *Questprobe* adventure, Scott considered letting players interact with and command the Fantastic Four, but his final design focused on just two of the team: the Thing and the Human Torch. "I didn't feel like I could justify all four characters," Scott reflects, "both in the time to design what the story was and also my ability to allow the player to use the characters properly. This was the first time I had ever allowed a player to control more than one character, and it might have been the first time that an adventure game ever did that as well. Even with the disk versions of the game there was a limitation, because the art would take up room, and single-sided single-density floppies were only 90K."

Scott limiting his adventure to two heroes soon proved prudent, as allowing players to switch from the Thing to the Human Torch and back meant ensuring challenges set for one hero couldn't be worked around by the other. "I had to make sure that the player couldn't get the characters into situations where they could cancel

» [ZX Spectrum] Instead of fighting the Circus Of Crime, you have to devise a way to circumvent the group's powers.

DIVISION OF LABOUR

The Human Torch and the Thing get split up near the start of their adventure, and many of the challenges they face subsequently can only be overcome by their opposite number. This makes reuniting the pair your top priority, which you can do by solving the puzzles that stand between them.

KNOW YOUR LIMITS

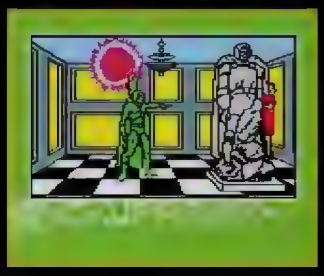
Our duo of crime-fighters have limits on their powers, which means that after exerting themselves they have to rest before attempting further heroics. Thankfully, there's a watch in their game that displays its wearer's energy level, from which you can work out how long to rest them.

MAZE GAMES

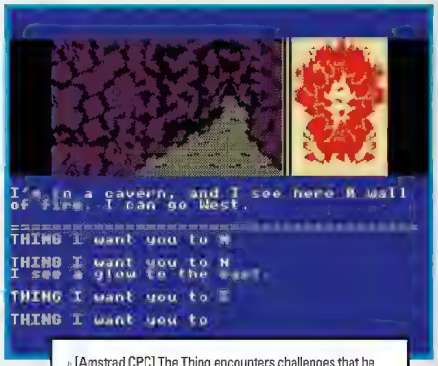
There's a sprawling cave system at the heart of *The Human Torch And The Thing* where you spend much of the game. The caverns don't have any natural light, which is more of a problem for the Thing than the Human Torch, but regardless, it makes sense to map them out.

NO CLOBBERIN' TIME!

Although it's a great adventure, there's no comic book brawling in the third *Questprobe* game. The Thing does flex his muscles to solve puzzles, but he's restricted to lifting and dislodging heavy objects. There *are* supervillains to defeat, but that requires the Human Torch's brainpower.



[C64] The Blob is unmovable, so you have to somehow persuade him to move out of the way.



[Amstrad CPC] The Thing encounters challenges that he can't overcome, but these are easily tackled by the Torch.

puzzles," Scott recollects, "but I still wanted them to feel like they had full freedom. So it was very challenging, but I had a lot of fun coming up with the puzzles. It had to feel like it was a sandbox, but of course it wasn't. There was a set path through it for the player to find and enjoy."

The path through Scott's third *Questprobe* title was littered with challenges, although unlike its predecessors, *The Human Torch And The Thing* had more complex problems from its initial challenge onwards, and no gems to collect. "I always try to come up with new puzzles when I do a game, and the Thing sinking into the tar pit was one of them," Scott says of his adventure's first conundrum. "As far as the energy eggs and gems go, I think I was planning to switch things up here a bit for a later plot twist. But I honestly cannot remember what or why."

The developer does, however, have a clear memory of incorporating a playing aid in the form of a watch designed by Mr Fantastic that displayed the Thing's and the Human Torch's energy, which determined the heroic acts they were capable of. "I was always adding new game mechanics as I went," Scott ponders, "I was constantly trying to improve my games, and Reed Richards' watch just fit the Torch's and the Thing's powers, as well as the game's puzzles. Also, gadgets are cool, and the watch gave me a great way to help the player know what was going on."

But there were downsides to the sophistication of Scott's latest Marvel adventure, namely its lack of opponents – unlike *Spider-Man*, and the absence of comic book brawling. "It was probably more technical in nature than *Spider-Man*," Scott assesses, "there was limited memory, and adventure games can't *really* be open-world sandboxes. Adding battle scenes to *The Human Torch And The Thing* would have required a lot of options, and would therefore have used a lot more memory."

Nevertheless, Scott's follow-up to *The Human Torch And The Thing* incorporated many more options than his previous three *Questprobe* games, but sadly, financial issues halted its production. "The idea of *The X-Men* was meeting and playing with a lot of different characters in areas that tested the user's knowledge of their powers," Scott reveals, "and also being able to give commands to those characters."

Beyond *The X-Men*, Scott hadn't made any firm decisions on which Marvel heroes would appear in the remaining eight adventures planned for the *Questprobe* series, but with hindsight he highlights a few options. "Mostly *Questprobe* was organic, and it grew as I developed each game, and as I did what I felt was right for each game," Scott muses. "I really hadn't determined my future line-up, but Mr Fantastic and the Invisible Woman, Captain America and Thor were certainly possibilities, and I loved Howard The Duck! It's a real shame that I didn't get to do a comic or game with him in it. I am so glad that I got to do the other characters though."

Thinking about the three games that those characters appeared in, Scott appraises his *Questprobe* trilogy of games as close to what he wanted to achieve, with his one regret being that his first adventure was something of a learning experience. "*The Hulk* was a bit rough, but I expected it would be as I entered the Marvel Universe," Scott acknowledges. "Other than that, I am pretty happy with the *Questprobe* games as they turned out, and I'm very honoured to be the very first to do home computer games within the Marvel Universe, and to have also authored a line – even though incomplete – of comics in that universe."

On reviewing those tie-in comic books, Scott beams with pride, clearly still a fan of Marvel's heroes and those that tell their stories. "It was really special to be a creative part of the Marvel Universe," Scott enthuses. "It was fantastic working with the greats of Marvel at the time, and I will forever cherish those interactions." ✱

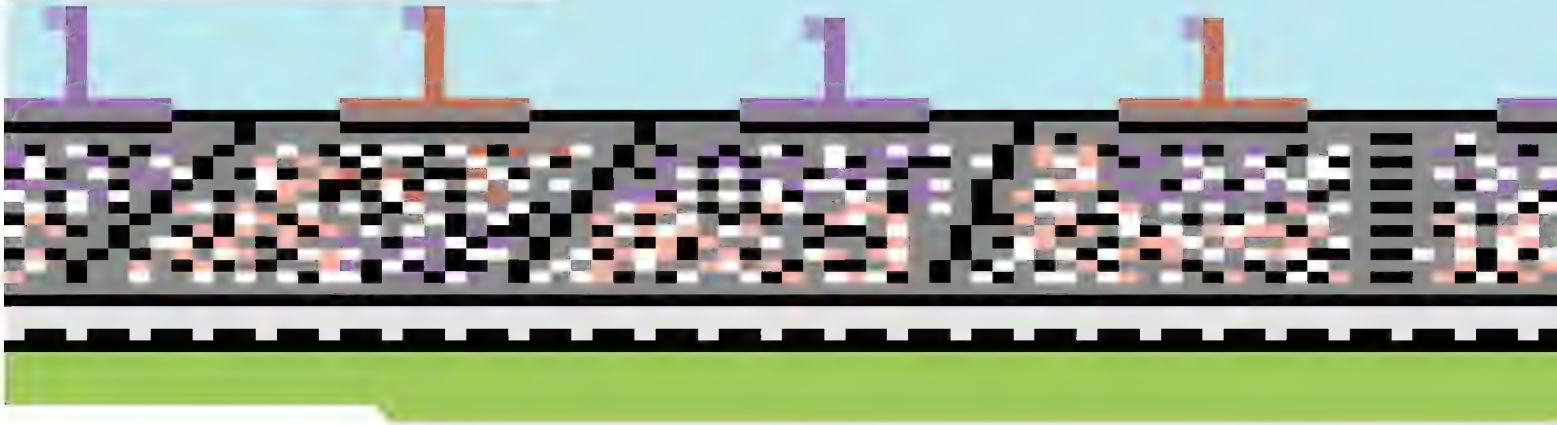
CLASSIC MOMENTS

Summer Games

» **PLATFORM:** COMMODORE 64 » **RELEASED:** 1984 » **DEVELOPER:** EPYX

The pole vault had always been a mystery to you. Most track and field events seem like pretty straightforward tests to see who can run the fastest, jump the highest or throw things the farthest. But what madman came up with the idea of assisted jumping, using a gigantic bendy stick?

You'd never cared so much before, but ever since *Summer Games* came along you'd become obsessed with this, because the event just happened to be a total nightmare to clear. On the surface, it seemed so simple – down to plant the pole, up to swing your body and fire to release it – yet actually completing a jump had proven frustratingly impossible. Then, a friend from school shows you the trick – start lowering the pole once its tip reaches the middle of the stadium. It's still a little tricky, but with a little timing practice, success is yours! Of course, you've only cleared four metres, so now it's time to put your recently acquired skill to work to reach new heights. ✱

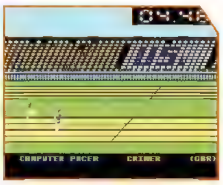


BIO

Although Epyx wasn't the first company to take inspiration from the Olympics, *Summer Games* was a huge hit in the Eighties computer scene. The game quickly became one of the most popular multi-event sports games thanks to its strong game design and superb graphics, and it remained highly regarded throughout the system's life, earning a review of 87% in *Zzap!64* in 1992. Its success across a variety of formats prompted the development of several sequels, beginning with *Summer Games II* and *Winter Games*, and eventually progressing to less-conventional variations like *World Games* and *California Games*.

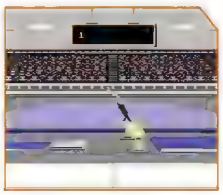
MORE CLASSIC SUMMER GAMES MOMENTS

The Crowd Goes Wild



In an age where graphical flourishes were definitely the exception rather than the norm, it was quite amazing to see what the crowd did in the 100-metre sprint. As you pass a section of fans holding cards, they flip to reveal the letters USA – not a surprising show of support, given the Los Angeles Olympics that summer.

Twist And Shout



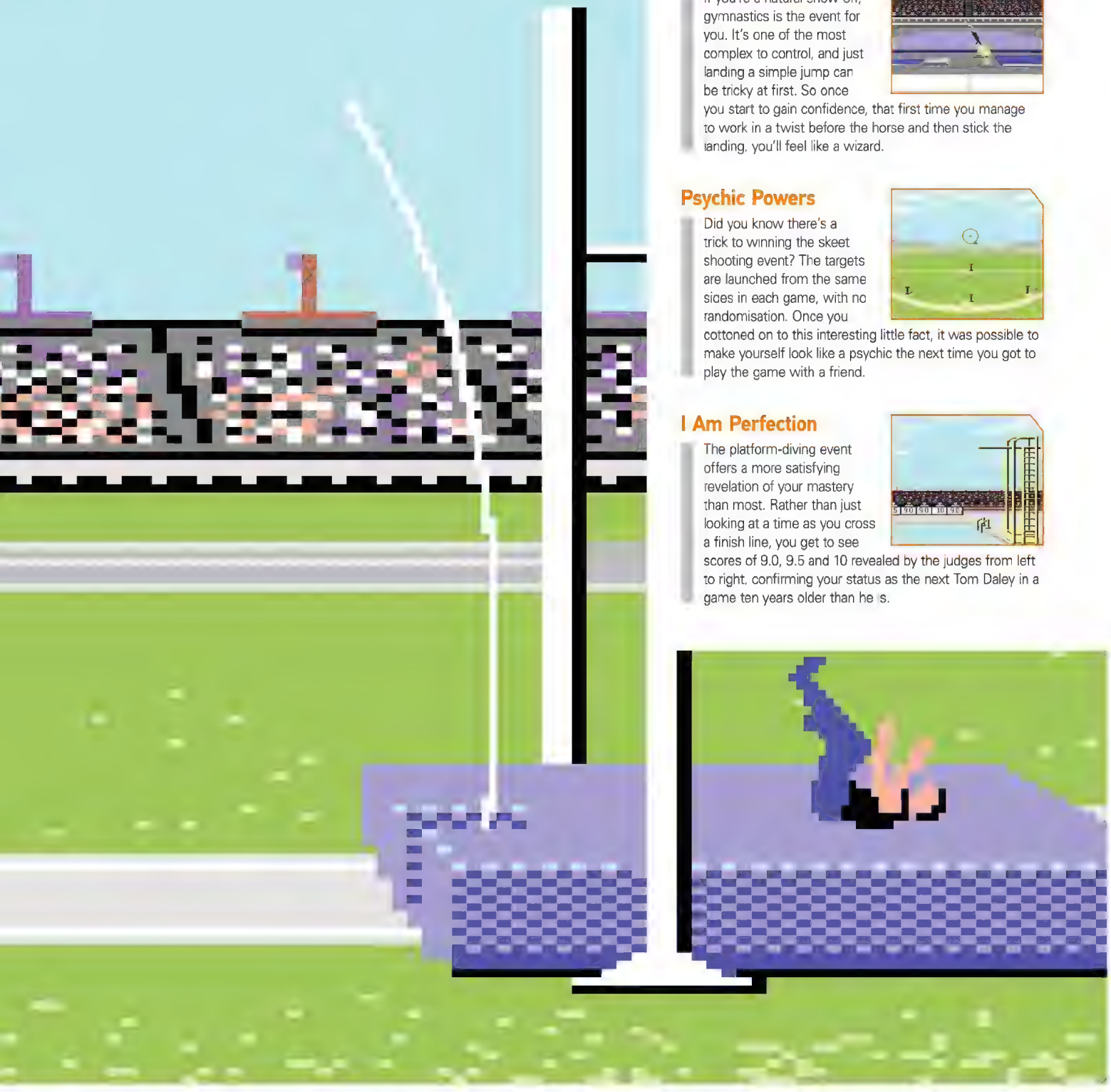
If you're a natural show-off, gymnastics is the event for you. It's one of the most complex to control, and just landing a simple jump can be tricky at first. So once you start to gain confidence, that first time you manage to work in a twist before the horse and then stick the landing, you'll feel like a wizard.

Psychic Powers

Did you know there's a trick to winning the skeet shooting event? The targets are launched from the same sides in each game, with no randomisation. Once you cottoned on to this interesting little fact, it was possible to make yourself look like a psychic the next time you got to play the game with a friend.

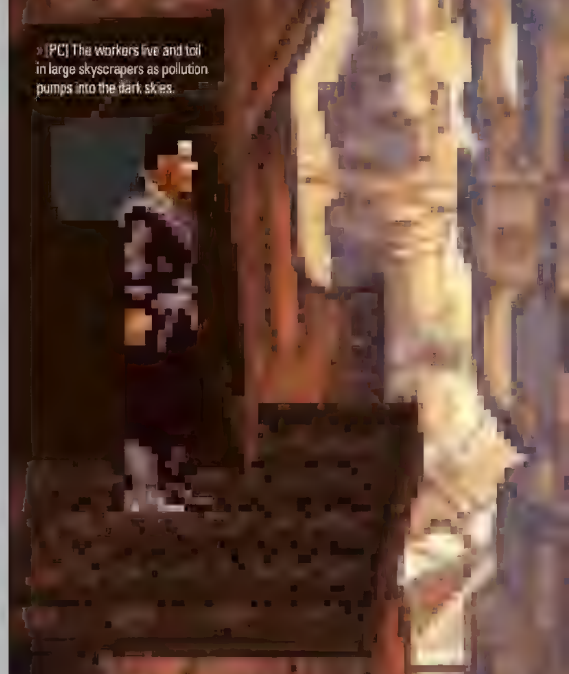
I Am Perfection

The platform-diving event offers a more satisfying revelation of your mastery than most. Rather than just looking at a time as you cross a finish line, you get to see scores of 9.0, 9.5 and 10 revealed by the judges from left to right, confirming your status as the next Tom Daley in a game ten years older than he is.



A TALE OF UNION CITY: THE HISTORY OF BENEATH A STEEL SKY

WORDS BY DAVID CROOKES



» [PC] The workers live and toil in large skyscrapers as pollution pumps into the dark skies.

ROBERT FOSTER IS BACK IN A NEW ADVENTURE BUT WHAT HAS CHANGED AND HOW DIFFERENT IS BEYOND A STEEL SKY GOING TO BE TO BENEATH A STEEL SKY? RETRO GAMER LOOKS AT THE EVOLUTION OF REVOLUTION SOFTWARE'S MUCH-LOVED DYSTOPIAN STORY

When Charles Cecil was seeking inspiration for his second point-and-click adventure, *Beneath A Steel Sky*, he decided to simply look at the world around him. "I was very much a child of the Soviet era and I found George Orwell's *1984* to be a great reference for the way a state may want to control you," he explains. "In the previous decade, Margaret Thatcher had said society didn't exist any more and people had become very rich and very selfish. I wanted to reflect back that society."

It was 1992 and Charles' development studio, Revolution Software, had just released its debut, *Lure Of The Temptress*, a medieval mooch around the town of Turnvale with the aim of defeating an evil sorceress. Rather than set *Beneath A Steel Sky* in the past, however, the developer looked ahead. In doing so, it sought to follow the patch trodden by dystopian movies, including *Mad Max* and *Blade Runner*, in depicting a scary, oppressive future.

Charles was enthusiastic about those films and he wasn't alone, either. Fellow fan Dave Cummins, who had designed *Lure Of The*

A comic drawn by acclaimed artist Dave Gibbons was bundled with *Beneath A Steel Sky* and the strip was replicated in the game's intro.

[PC] Communication is the key to success with lots of characters to converse with throughout the game.

[PC] In the original game, the Foster-Joey pairing is used for solving puzzles.

Temptress, was also excited at the prospect of working on a gritty and thought-provoking cyberpunk adventure and they shared a desire to convey a stark message – or a warning, even – to anyone who bought into their world. "The idea of conveying messages from today is something that really interests me," Charles says. And in Dave he found a perfect partner.

"I'd met Dave at Activision where he'd worked for me as a game tester and I remember him so beautifully writing a test report about an adventure," Charles recalls. "It was quite clear that he was a better writer than the adventure writers themselves, so when I founded Revolution, I invited him to come and join us in Hull. Those early games were very much the juxtaposition of me wanting to write dramatic stories and him being cynical."

This drove *Beneath A Steel Sky* – "That defining characteristic of wanting to be dramatic and slightly ludicrous," as its creator puts it. "Since then, we've found that people who played the game can remember exactly what happens at the beginning and at the end and most of what happens in between. It's become a profoundly important game."

Today, Charles is working on a long-awaited sequel, hoping to give the title's enduring fanbase an opportunity to form further memories. Called *Beyond A Steel Sky*, it is being developed for the PC, consoles and iOS (via Apple Arcade), and it will see Robert Foster return to Union City, some 26 years after gamers were first tasked with helping him escape.

"We're picking up ten years later when a child is kidnapped, forcing Foster to follow some tracks that take him back to the metropolis," Charles says. "His buddy, Joey, had been left in charge when he left a decade earlier and it now feels like a wonderful place. Everybody is happy, everybody has as much as they can consume and everybody has nice thoughts. It's seemingly an absolute utopia. But Joey is not there anymore and Foster is surprised. He cannot reconcile that the city would have anything to do with the kidnapping and that's the premise of where we're now heading."

Such a premise is faithful to the original game which, for those who have never played it, is set in an imagined Australia, putting players in the shoes of Robert Foster – so called because, after becoming the sole survivor of a helicopter crash, he was found by indigenous locals in the outback (or the Gap as the game called it) next to an empty can of lager.

Taught how to survive and imbued with enough technical skill to develop his talking robot pal Joey, Robert subsequently suffers the horror of seeing his tribal family killed by an army sent from Union City thanks to an order from a powerful computer called LINC, an acronym for Logical Inter-Neural Connection. Kidnapped and transported to the metropolis by another chopper, he's subject to a second crash which leaves him stranded in the city's upper level. Robert is able to escape and, with security guards in pursuit, the scene is set.

This backstory was lavishly explained in a comic book drawn by revered artist Dave Gibbons. It proved to be more effective than a wordy manual and set up Robert Foster's motivation and purpose. "Foster was driven by the question, 'Why me?'" says Charles, of the character's determination to discover why he was abducted. It was then a case of getting the player to explore a city in which the rich and powerful live underground away from pollution and in which the oppressed masses lead their lives in the exposed skyscrapers.

"It was important to lay down the story right from the start because that's what point-and-click adventures are about," says

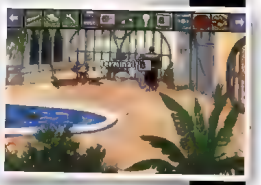
SURVIVING A STEEL SKY

HOW TO TACKLE REVOLUTION'S GAME

READ THE MANUAL

It's a good idea to get a grasp of the world you're about to enter and understand the backstory. Download a game manual from Revolution's website at bit.ly/revsteelsky and get the game itself for free via gog.com for PC and Mac, downloading the comic while you're at it.

THINK LOGICALLY



The puzzles can be obscure but they are always logical. "We tried really hard to design puzzles that wouldn't result in the player trying every opportunity until they stumbled on a solution," says Charles Cecil. So look at your inventory and think about how those objects could be used.

ENJOY THE STORY

The more alert you are to what is going on as you make your way through the game, the better you can slip into the right mindset. "The thread of why Robert Foster was taken and why his village was destroyed develops through the game and leads to the dramatic climax," says Charles.

KEEP LISTENING

It's important to try and digest the lines that you're being fed because they can contain clues and pointers as to what you may need to do next. You will also get a better flavour of the character's personality which will ensure you get to know them a bit better, maximising the fun.

ALTER THE SPEED

Check out the in-game options in the control panel. As well as being able to change between speech, text and speech, and text only, there is a button that allows you to speed up the game – this sadly isn't an option if you're running the game via ScummVM.

Charles. "So that came first, with the plot written down on two or three pages. We then looked to identify dramatic gameplay moments that would form the story and created a section overview for each part. After that, we designed the puzzles and that was an iterative process as well because we'd look at the inventory items brought forward from previous sections and try and find uses for them."

The process took two years and cost Revolution £40,000 (a sum equivalent to twice that in today's money). It was a small investment compared to contemporary games – and certainly in comparison to the big-budget *Beyond A Steel Sky* – but the returns were great for the handful of developers who managed to produce a title that was some six times larger than *Lure Of The Temptress*.

"We certainly spent a lot less time on the narrative and script than we would today, mainly because there was a lot less dialogue," Charles muses. "And you know, people look back at *Beneath A Steel Sky* with great affection which is incredibly flattering but if you listen to the voices, if you listen to the story and what the characters say, it is a lot cruder than what an adventure player would expect these days."

For many, this is undoubtedly part of the charm since the whip-smart interactions and the quirky British humour (and double-entendres) of this whimsical jaunt help to bring Union City to life. Set against the atmospheric backgrounds created by Dave Gibbons, who also made huge contributions to the story, it is a world that players can buy into as they made their way over the four levels, exploring the factory, city, park and underworld. You will encounter many uninterested, bureaucratic or apathetic individuals who are quite aware of their world's social hierarchy.

"Dave would draw the background layouts in pencil and these would be painted by an artist called Les Pace before being scanned in on an Apple Macintosh," says Charles, who laughs at the memory of data moving from one computer to another via a 3.25-inch disk hurled like a frisbee from one end of the office to the other. "Back in those days we actually had a very experienced team in terms of pixel animation. Stephen Oades, in particular, who was a local Hull lad, was just brilliant at pixel art and Dave Gibbons would become very excited, comparing the work to jewellery, saying you could change the colour of a pixel very slightly and it would have an effect on what the eye is being told."

Revolution gave Dave a copy of Deluxe Paint on the Amiga and he ended up designing the characters, too. This not only nailed the look of Robert and Joey but other key roles including officer Stephen Reich, rebel Anita, barmy plastic surgeon Dr Burke who is after Robert's testicles, the old dear Danielle Piermont and pipe-making factory supervisor Gilbert Lamb whose coat is allegedly "made from the last ten beavers in the world".

Gilbert's Yorkshire accent became typical of the game's northern flavour. Originally, however, the game was to be voiced by actors from the Royal Shakespeare Company but, during a break in recording, they'd popped off to the pub and, upon their return... "They didn't sound anything like that had done in the morning," says Charles. "It was quite extraordinary and I knew no better because it was the first time I'd recorded any actors. We had to scrap it all and start again."

Many of the characters were inspired by people Charles had met in vehicle production factories in Britain and France when he was a management trainee for Ford. The pipe factory existed because a UK manufacturer had been in the news for innocently creating tubes earmarked for Saddam Hussein's 'supergun'. In some ways, however, Charles says such additions were evidence of a scattered approach. "Ideas could be taken and picked haphazardly and some made no sense at all."

(PC) Few puzzles required quick thinking but this tunnel is in danger of collapse.

> "BACK IN THOSE DAYS WE ACTUALLY HAD A VERY EXPERIENCED TEAM IN TERMS OF PIXEL ANIMATION. STEPHEN OADES, IN PARTICULAR, WHO WAS A LOCAL HULL LAD, WAS JUST BRILLIANT AT PIXEL ART"
> CHARLES CECIL

BEYOND A STEEL SKY

HOW REVOLUTION IS EVOLVING THE SERIES

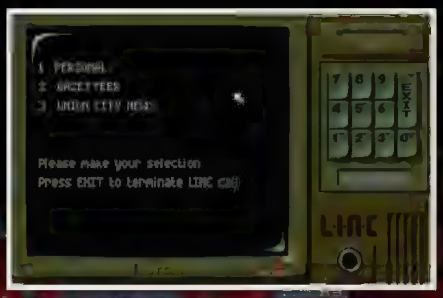
SWITCHING FROM 2D TO 3D

The game has been developed using the Unreal Engine 4 – a departure for Revolution which tends to create its own engines. "A full 3D world offers great cinematography opportunities, and fans are broadly enthusiastic about the idea of creating a real-time comic book look in a 3D world," says Charles Cecil.

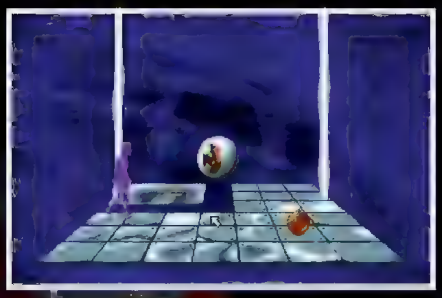
USING THE 'INTERNET OF THINGS'

Just like the internet, Union City's network, LINC, has spread its tentacles to include many machines, and these can be hacked. For example, you could alter the logic of a vending machine to set off an alarm rather than dispense a drink. This could distract a security droid and temporarily disrupt the world.

[PC] Here's Mrs Piermont, one of the many eccentric characters typical of Revolution Software adventures.



[PC] By utilising a LINC card, you can access terminals and glean useful information about Union City.



[PC] Eye, eye, things have just become a little more surreal in *Beneath A Steel Sky*.

I thought you'd be GLAD to SEE me!

[PC] The grand finale and some revelations that will shock Robert Foster to the core.

REINVENTING THE VIRTUAL THEATRE

Having reassessed the Virtual Theatre in *Beneath A Steel Sky*, Revolution has made a good number of improvements. Walk up to non-player characters and they'll acknowledge you, then chat. Mess around with machinery and it could affect those around you. Indeed, the characters may even try to fix your meddling.

INNOVATIVE GRAPHICS TECHNOLOGY

Dave Gibbons created the gorgeous graphics for *Beneath A Steel Sky* and he's returned for the sequel. He's using a proprietary graphics technology called ToonToy which takes an object and inks and paints it in real time. "This is done to mimic the art style of a comic book," explains Charles.

GREATER CHARACTER CONSISTENCY

Charles says the team has a much clearer idea of who the characters are and their functions. "If you don't have this, then you'll write dull characters," Charles says. "In *Beyond A Steel Sky*, they behave in the way you'd expect them to and this will help when solving the many puzzles we've set."

PORTING A STEEL SKY

***Beneath A Steel Sky* was originally released for the Amiga and DOS computers, and it was made available as freeware for the PC in 2003.** The game was also remastered and released on the iOS App Store on 7 October 2009, keeping its memory alive.

"I'd received a call from Apple and the person said he thought our games would work really well on the iPhone," says Revolution boss Charles Cecil. "We'd just produced *Broken Sword: Shadow Of The Templars – The Director's Cut* on the Nintendo DS and we agreed that a handheld version of *Beneath A Steel Sky* would be perfect."

Its appearance on the iPhone revived talks of a sequel. "Dave Gibbons had actually written a script about a year or two after the original *Beneath A Steel Sky*," Charles reveals. "But this was now in the mid-to-late Nineties when the only way to get a game developed was to find a publisher to fund and distribute it.

"The publishers had become obsessed with the idea that the adventure [genre] was dead and they were more interested in commissioning interactive movies," Charles continues. "I was also being told that the PC was dead which of course seems laughable now but it meant the sequel had been put on indefinite hold."

Rather than get straight on with a sequel following the iOS appearance, Revolution worked on publishing *Broken Sword: Shadow Of The Templars – The Director's Cut* in 2010, following by *Broken Sword II: The Smoking Mirror*.

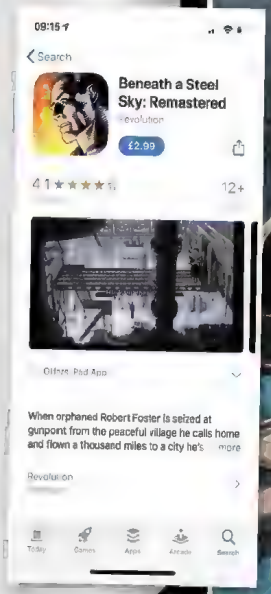
"Both were successful and we'd come from a position of being financially weak to slowly building ourselves up and it was just fantastic," Charles says. "Dave Gibbons remained loyal throughout and we maintained that relationship. We kept talking about a sequel to *Steel Sky* but the creative and commercial opportunities did not exist until recently."

The original plans for a sequel would have been a 2D title. Revolution had seen a mixed reception when it moved to 3D with the third *Broken Sword* game, *The Sleeping Dragon*, in 2003. "It split the community," says Charles. "A lot of gamers new to the series played it and loved it but many fans from the previous two games didn't."

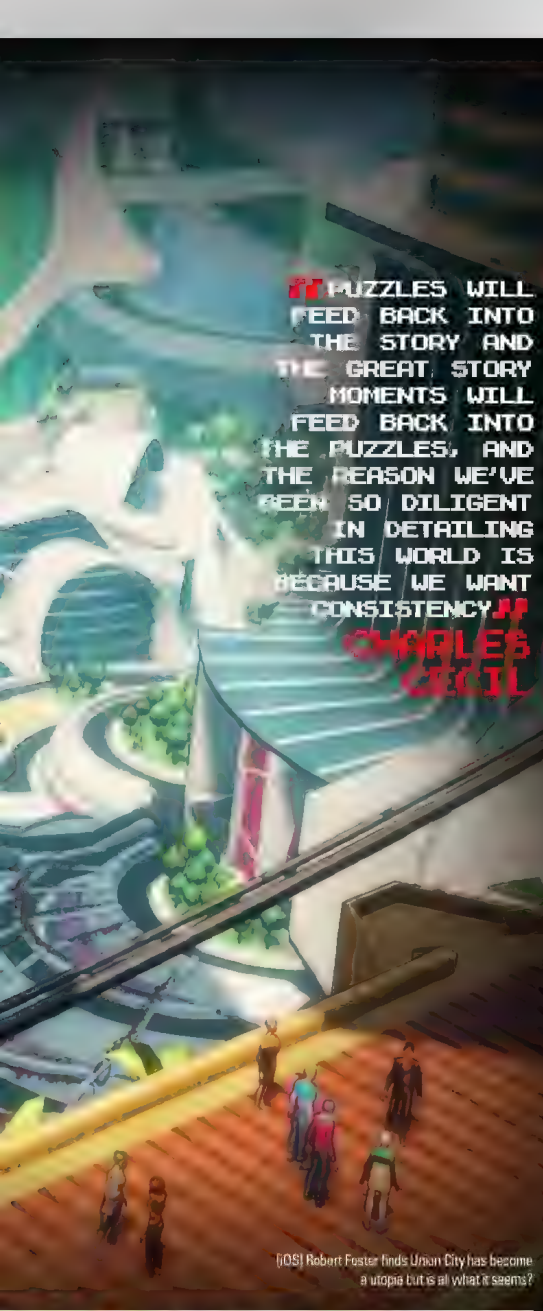
It proved to be a learning experience. Although many prefer to cast 2006's *Broken Sword: The Angel Of Death* from their memories and despite a 2D revival in 2013 with *Broken Sword 5: The Serpent's Curse*, Revolution is embracing 3D with *Beyond A Steel Sky*. "We're being more skilful in the way that we're using the opportunities offered," Charles affirms.

» [iOS] Robert Foster is back and making his way from the Gap to Union City.

» [iOS] Union City looks more polished today but the cyberpunk vibe continues to shine through.



» [iOS] Just as in the point-and-click adventure original, there are many conversations to be had with non-player characters.



"PUZZLES WILL FEED BACK INTO THE STORY AND THE GREAT STORY MOMENTS WILL FEED BACK INTO THE PUZZLES, AND THE REASON WE'VE BEEN SO DILIGENT IN DETAILING THIS WORLD IS BECAUSE WE WANT CONSISTENCY"
CHARLES CECIL

[iOS] Robert Foster finds Union City has become a utopia but is all what it seems?

Joey, however, was a deliberate addition and crucial to the adventure, driving the narrative and aiding the creation of some of the puzzles. "Joey added an extra dimension because you could get him to do things," Charles explains. "Clearly in television and film you often have a pairing because you need to convey the exposition. A good way to do that is to hide it within a conversation happening on a different level. You can say what you want to the gamer and do it through an exchange that appears to be about something else."

Some of these characters and ideas were added during the development of the game and a few became more important than others. "The beauty of writing a game back then was that we could be much more flexible," Charles says. "One day we were trying to work out a puzzle and someone said [spoiler alert!], 'Oh my god, LINC is Foster's dad" and suddenly these dominoes fell into place. We could change the whole emphasis of the game and it worked extraordinarily well."

That could never happen with *Beyond A Steel Sky*. With this game, Revolution has created two documents that always stay separate from each other. One is the story and the supporting information that rolls on for hundreds of pages. The other clearly spells out the design.

"They are kept separate very deliberately because they will affect and inform each other," Charles explains. "Puzzles will feed back into the story and the great story moments will feed back into the puzzles, and the reason we've been so diligent in detailing this world is because we want consistency. When somebody asks, 'Oh should this be here?' it can become quite clear what the answer should be. When you have consistency, it means the storytellers don't have to explain everything."

It also means the method of creating the puzzles is different and it's perhaps prudent to explain that *Beyond A Steel Sky* is not a straightforward 2D continuation of the original story but, rather, takes the game into 3D which can force a different approach. *Beneath A Steel Sky* is a traditional point-and-click and its methodology is familiar to anyone who has played such games before.

"*Beneath A Steel Sky* was driven by the inventory and the inventory alone," Charles says. "So therefore you had to have puzzles that required unusual uses of your inventory." While Charles believes the puzzles were "broadly quite logical", they could certainly leave gamers stumped at times. None were in the same category at the infamous goat puzzle that featured in *Broken Sword: The Shadow Of The Templars* in 1996, however.

"Any of the solutions in *Beneath A Steel Sky*, once you stumbled on them, would have made you think that you should have got it which meant you didn't feel cheated," Charles says. Even so, coming up with puzzles that made sense was no easy task. "Generally, you have a small number of really good puzzles with a lot of filler but we worked hard to strike a balance," he continues. "Frankly, it's very, very easy to come up with loads of cheap puzzles but much harder to create those that fit within the context of the environment and the logical behaviours of the characters as they exist in the world."

Revolution is not taking the same approach with *Beyond A Steel Sky*, which is being created from the company's studio in York's historic Shambles and assisted by an external developer. "We're not having puzzles that require unusual uses of your inventory because there's always a risk it can create contrived gameplay," Charles says. "I'd like to think that players of *Beyond A Steel Sky* won't get stuck because they'll spend longer exploring the environment for a solution, looking at the behaviour of characters and the systems. In a point-and-click adventure like *Beneath A Steel Sky*, you could resort to using every inventory item on every background [object] because you'd think the solution could be illogical. There was a hope that you'd stumble on a solution in the end."

One crucial thing *Beyond A Steel Sky* is continuing, though, is the use of its Virtual Theatre engine, created by Revolution cofounder Tony Warriner. It debuted with *Lure Of The Temptress* and was used in *Beneath A Steel Sky*, allowing non-player characters to wander Union City, interact with the surroundings and make the world seem more natural.

"It was used for one character in the original game: Gilbert Lamb," Charles recalls. "We'd found having characters walking about in *Lure Of the Temptress* caused a problem because they'd wander a fair old distance and players never knew where they were at any one point. They'd have to go looking for them and it could take a long time.

"So we limited the Virtual Theatre in *Beneath A Steel Sky* and concentrated on Gilbert Lamb: he'd wander around, go in the lift, go down, go to his room and then back again. What this allowed us to do was introduce a nice puzzle where you could go into the LINC system and take away his priorities so he couldn't enter the lift and had to give you his card. It struck me as a really interesting use of Virtual Theatre."

In *Beyond A Steel Sky*, around four of five characters are restricted to a specific area, and so players can see where they are, eliminating the chase and a sense of having to wait for them to turn up. There can be interactions, as with the previous game, allowing Robert Foster to communicate with other characters.

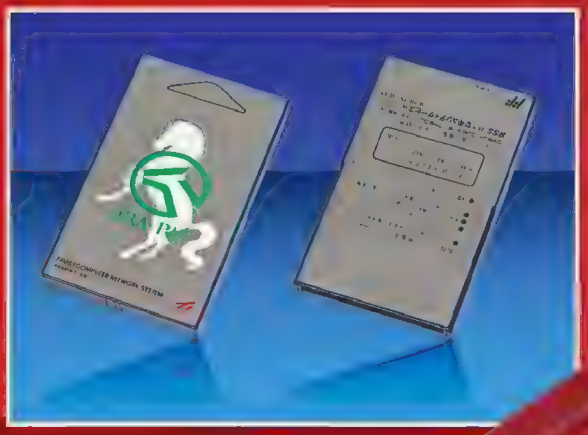
"It remains a cerebral game," Charles insists. "Just like the original, we're not drawing on a player's manual dexterity. What we want, as in *Beneath A Steel Sky*, is for the player to evaluate the environment and get them to put several steps together to work out how to overcome a puzzle. Sometimes it's just an inventory item; sometimes in the new game it's in conjunction with hacking objects and the behaviour of characters. If you enjoyed *Beneath A Steel Sky*, then you're going to love how we've moved it on." ★

Famicom Network System

» **PLATFORM:** Famicom » **RELEASED:** 1988
» **COST:** ¥19,800 (launch), £30+ (boxed, today), £5+ (unboxed, today)

In the late Eighties bubble economy of Japan, stockbroker Nomura Securities was looking for new ways to provide services to its customers. With the Famicom established as a fixture in households across Japan, the company viewed it as a low-cost computer capable of hosting network services, and partnered with Nintendo to develop a modem peripheral and accompanying software. The bulky device accepted software on thick ROM cards, and featured its own ROM including common elements such as kanji characters to free up program space on those cards. The device came bundled with a special controller, featuring a number pad and function buttons for browsing menus.

Reports state that 130,000 units were sold, covering less than 1% of the final Famicom user base. The service was plagued with reliability issues early on, and though most of the software released was related to financial services, it was hard to convince people that business transactions should be conducted on a kid's *Mario* machine. Nintendo developed prototypes of online games including Go, but connection speeds were so slow that most games were impractical, though Konami did release an online shogi title. Bizarrely, gambling turned out to be the system's most popular use. ★



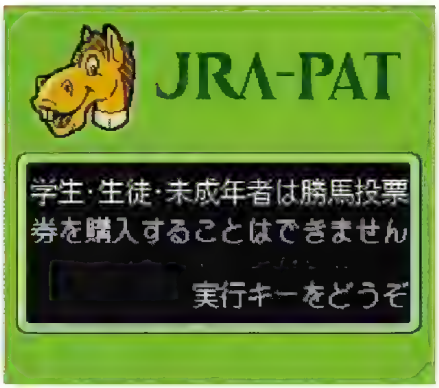
Famicom Network System fact

■ A dedicated Famicom Network System console called the Dataship 1200 was also released. It looks like a vintage answering machine and can't accept regular cartridges, making it quite useless today.

ESSENTIAL GAME

JRA-PAT

Released by the Japan Racing Association, a public company that oversees the tightly regulated horse racing industry in the country, this software allowed a player to have a little flutter from the comfort of their own home. What's remarkable about this is its longevity. Although the Super Famicom and Dreamcast also had software for this purpose, the Famicom Network System version was supported for more than 20 years after the release of the modem, and well past the system's discontinuation. Unfortunately for aspiring punters, this service has now ceased, though you'd need to be fluent in Japanese and resident in Japan to enjoy it anyway.



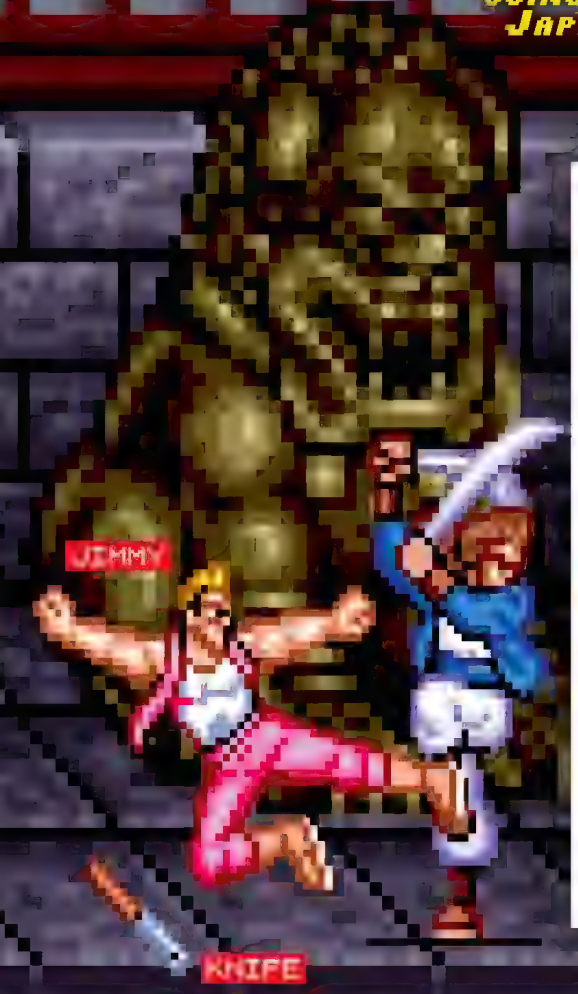
ULTIMATE GUIDE

RETURN OF DOUBLE DRAGON

"SLEEPING DRAGON" HAS AWOKE

The success of Double Dragon meant that a fourth adventure for the Lee brothers was always going to be on the cards. Interestingly, the later Japanese release turned out quite differently to its earlier western counterpart

Words by Darran Jones



Few scrolling fighter franchises are as well-known as *Double Dragon*. First released in Japanese arcades in 1987, Technos Japan's influential brawler made a big impact both in its homeland and overseas, and set up the template for the modern scrolling fighter in the process. The huge success of *Double Dragon* meant it was ported to all manner of consoles and home computers, from the ZX Spectrum to Atari's Lynx, with varying degrees of success. Two arcade sequels followed, largely sticking to the same rigid formula which had worked so well for the 1987 original, but many felt that they failed to eclipse the sheer brilliance of Billy and Jimmy's debut, although the NES sequels, which are quite a bit different to their arcade counterparts, remain well-regarded.

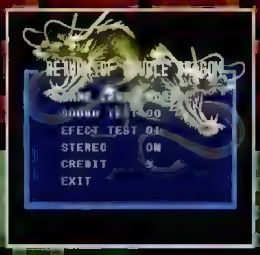
When work on a fourth *Double Dragon* began, Technos shifted away from the arcades and instead pledged to create its sequel as a Super Nintendo exclusive. This made a lot of sense in many ways, particularly as the aforementioned NES versions had performed very well for the developer. After losing out on publishing rights to Acclaim for *Double Dragon II* and *Double Dragon III*, Tradewest sought to seek out a new publishing deal with Technos with the intention of releasing the game in North America and Europe. The deal went ahead but Tradewest continually pushed Technos Japan to release the game early – in fact, *Super Double Dragon* was released 11 months ahead of its Japanese counterpart, which was renamed to *Return Of Double Dragon*. As a result of this earlier release jump, the western version of Technos' game features quite a few differences to the later Japanese effort, a release which is superior to *Super Double Dragon* in every way.

Of course, no one knew about the changes when *Super Double Dragon* was first released, and even if they did it's unlikely to have changed the lukewarm reception that the western release received, which is particularly baffling when you consider how popular the arcade franchise and the NES games were. "Yet another crap *Double Dragon* game," was *Total!*'s summation of the game. "The graphics are decent but there's no challenge – it's just a case of hit and nope." The magazine awarded it 61%, concluding it was a worse alternative to the likes of *Final Fight*, *Rival Turf* and *Turtles In Time*.

Super Play also seemed largely unimpressed, offering a 68% verdict and suggesting that "it's far more fun than *Final Fight* for example, even in one-player mode, but sadly it looks a lot worse", although the great animation was rightly pointed out. While *Super Play*, along with other gaming magazines, criticised *Super Double Dragon*'s aesthetics, a secondary review from the magazine

DOUBLE DRAGON REDUX

SIGNIFICANT DIFFERENCES BETWEEN THE WESTERN AND EASTERN RELEASES



DIFFERENT MENUS

1 While both games do sport menus, *Return Of Double Dragon* offers the option to tweak the game's difficulty with easy, normal and hard modes, and also adds options for listening to sound effects and music.

MORE MUSIC

2 Speaking of music, the tunes found in *Return Of Double Dragon* are far better as it now features the original *Double Dragon* theme on the title screen and final level, and new tunes for Missions One and Three.

ENHANCED STAGE

3 The final level of *Return Of Double Dragon* is greatly improved. It adds two new sections, concluding with a dramatic battle in a large area where you fight all the bosses and leader Duke.

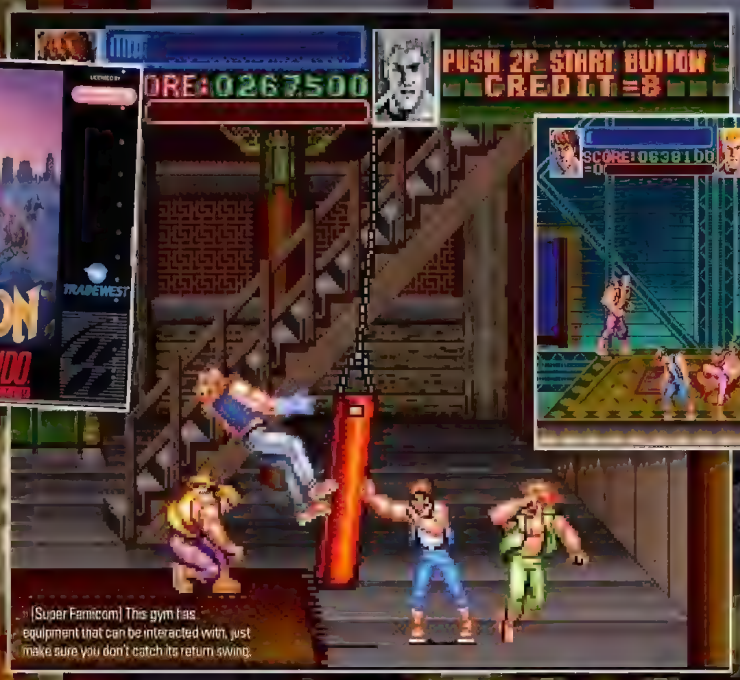
THE ENDING

4 One of the few bonuses that *Super Double Dragon* boasts is an actual ending. Granted, it's simply some scrolling text that sums up the adventure, but it's still a big improvement over nothing.

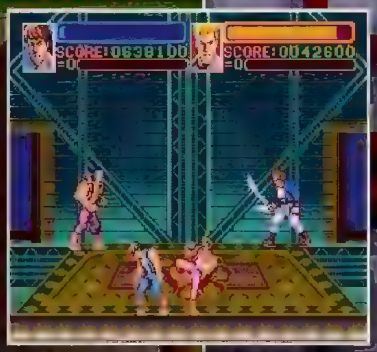
BALANCED WEAPONS

5 *Return Of Double Dragon* features a number of tweaks here. Knives do far less damage, you can now grab the boomerang if you're facing it and it's possible to easily switch to different weapons.

» The box arts are similar in composition, yet so different in execution.



» [Super Famicom] This gym has equipment that can be interacted with, just make sure you don't catch its return swing.



» [Super Famicom] There's no end battle between the brothers this time, but you can still bash each other during missions.

noted the game was "a valiant attempt and deserves a higher score".

Super Double Dragon quickly came and went in the west, but the extra time spent getting *Return Of Double Dragon* ready for the Japanese market meant that some of the issues noted in western reviews were fixed. Despite this added time, the game still did ship as codirector Muneki Ebinuma intended, as the cutscenes focusing on *Return*'s story were cut, for example (you can read more at bit.ly/returndoubledragon). Still, it was significantly better than *Super Double Dragon* because the extra development time allowed for plenty of gameplay tweaking (although the bug that stopped the brothers from battling each other like in previous games still couldn't be fixed).

Revisiting *Return Of Double Dragon* today, it's clear that Technos' game received a rather rough ride on its original release. Yes, it doesn't have the most imposing sprites, but they are all extremely well-animated and look absolutely great in motion. Technos' decision to utilise smaller sprites also means there's much more space for the characters to move around in, which becomes particularly important when participating in the excellent

BOSS RUSH

HOW TO BEST THE SHADOW WARRIOR GANG

STEVE

Don't be fooled by Steve's immaculate appearance and love of fine clothing, as this bruiser certainly knows how to throw a punch. Best keep your wits about you for this battle.

HOW TO BEAT HIM:
Watch out for his dangerous roundhouse jump-kick and wait out his blocks and fast flurries. Strike quick whenever he drops his guard, or stagger him with your reverse punch.

JACKSON

You'll meet this former boxer on the tarmac of your local airport. He's a fairly imposing figure due to his bandaged hands, love of denim and severe haircut.

HOW TO BEAT HIM:
Jackson likes to block your punches so avoid using them. Instead, keep your distance and stagger him with kicks. You can then finish him with an uppercut.

SHEN LONG FOO & SHEN LONG PYO

These brothers do everything together, including laying their fists and feet on anyone that's foolish enough to enter their territory. Unlike in *Super Double Dragon*, you have to fight them at the same time. Yikes!

HOW TO BEAT THEM:
Be careful using kicks on the brothers as they can easily grab and counter you. Instead, block their flying kicks and throw punches at them before they can recover.

MCGUIRE

Don't be fooled by his colourful attire and rotund appearance, because McGuire is no clown. He's also the only boss that guards the end of two stages.

HOW TO BEAT HIM:
McGuire's belly allows him to easily absorb some punches, and his spin attack can't be blocked. Use kicks and always keep on the move for the best results.

CARLEM

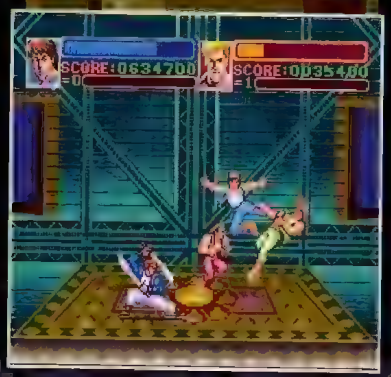
The penultimate boss is one of the bulkiest in the game and reminds us of a certain Arnold Schwarzenegger. Check out those *Terminator 2* sunglasses, for example.

HOW TO BEAT HIM:
Carlem has great reach and loves to block, so he's a stiff challenge. Mix up attacks and throw enemies his way to stun him and get the upper hand.

DUKE

He may have terrible dress sense and sports a silly-looking ponytail, but Duke should still be feared. Need further proof? He doesn't need a gun to punish you.

HOW TO BEAT HIM:
Concentrate on the returning bosses first as Duke can't be defeated before them. This guy is fast and has a range of moves so keep moving and mix your attacks. Good luck!



» [SNES] Whether you're playing *Super* or *Return Of Double Dragon*, kneeing goons is always fun.

two-player mode. Both versions of the game give you the option to damage the other player, and they also allow a second player to jump in at any time. Another benefit of the smaller sprites is that they do make some of the later bosses feel genuinely intimidating as a few tower over the Lee brothers – a welcome reminder of the hulking Abobo, who was one of the few villains to not make it into the fourth *Double Dragon* game.

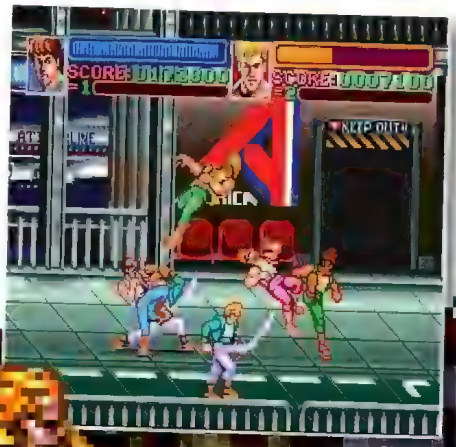
While it's easy to point out that *Return*'s levels are fairly generic, this in itself is intentional as it's effectively a reboot of the original arcade game. Marian may now be a police officer, but she's once again missing and the brothers vow to rescue her (although her on-screen appearance was another aspect that was inevitably confined to the cutting room floor). There's a lot more verticality in *Return*'s level design compared to the original *Double Dragon*, while stages like Mission Four's brawl across the top of a moving truck ensure you're not just battling your way through tired urban locations.

All scrolling fighters tend to suffer from generic-looking levels, particularly those based in urban environments, and as a result the true strength of a fighter's appeal is always its combat engine. And this is where *Return Of Double Dragon* completely obliterates the competition, brutally laying waste to any game that opposes it. No scrolling fighter from the 16-bit era can compete with the comprehensive moveset that the Lee siblings boast, and that includes heavyweights such as *Streets Of Rage 2* and *Final Fight* which look positively pedestrian in comparison.

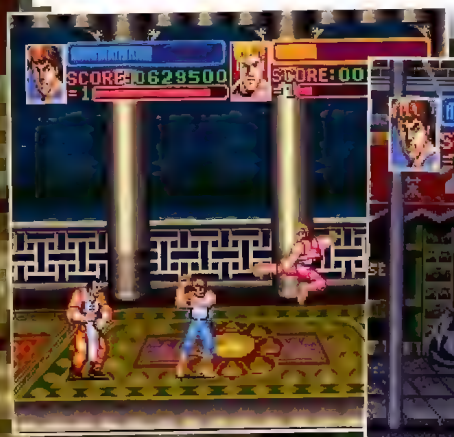
Return's fighting engine is amazingly flexible, making use of all six core SNES buttons. Kicks and punches change depending on how many are thrown, meaning it's possible to pull off a large number of different combo attacks against enemies. While the beat-down bros disappointingly no longer have access to the run move seen in *Double Dragon III*, the ability to block is a welcome addition to the core mechanics, as it adds a further layer of strategy to the game, particularly if you play on the hard difficulty, which is exclusive to the Japanese release. Play on that harder mode and the action turns into a Hong-Kong-action-cinema-style trading of blows as you both desperately throw up blocks while looking for the opportunity to counter.

Time your use of the block correctly and you'll be able to grab an opponent and can then proceed to pummel or kick them mercilessly, only stopping to either throw them into approaching enemies or keep other attackers at bay with a sneakily-timed back kick. The moveset of the brothers is further amplified by their ability to attack by leaping off walls, use handy reverse jump-kicks, downward dash-kicks and devastating knee attacks. Basically, the more you experiment with the game's mechanics, the further you are rewarded. The combat engine Technos created really is something else, and that's without exploring the many weapons you can pick up, which have been suitably tweaked or enhanced since making their appearance in *Super Double Dragon*, or the fact that the brothers have access to special attacks with vary in style and power the longer you hold down the L and R buttons.

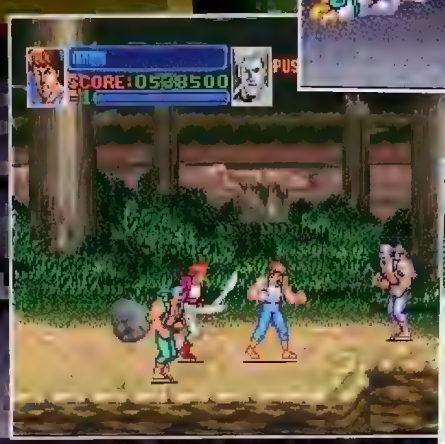
Return Of Double Dragon may not be the definitive scrolling fighter of its era because there are clearly aspects of its design that simply fall short when placed up against its more rounded peers, but when it comes down to simple brutal brawling – which let's face it, is ultimately what matters – no other home game of its time comes close. ✱



» [Super Famicom] The number of enemies ramps up on later stages, another reason to play with a friend.



» [Super Famicom] Blocking becomes essential, especially once you tackle the hard difficulty.



» [Super Famicom] Fill your power bar completely and you'll assume this hulking, powerful form for a limited time.

» [Super Famicom] It's not the prettiest of games but *Return* does have some sweet animation.

Mercs

THE MEGA DRIVE GAME WITH A MEGA MODE

» MEGA DRIVE » 1991 » SEGA CS

One of the things that Sega understood early on was that great arcade conversions alone would not be enough to win a console war. As a result, many of its Mega Drive games came with additional levels (*Golden Axe* is a good example) or even brand-new modes like with *Super Hang-On* which let you earn gold in races and then upgrade your motorbike.

Capcom's *Mercs* enjoyed a solid conversion on Sega's 16-bit console and while it disappointed some due to only catering for a single player (up to three friends could wreck havoc in the arcade game), it did sport a rather nifty 'Original' mode. Set on a large island, the aim is to navigate each distinct area, tearing through defences and mowing down countless enemy soldiers. Each level is completely different to those found in the arcade version (which is also included) but familiar bosses do return to once again challenge you and soak up your bullets.

So far, so *Mercs*. Get halfway through the second stage, however, and you'll reach a tent, which not only supplies you with handy upgrades, but also introduces a new mercenary who you can enlist to aid you in your island assault. You'll initially meet a meathead with a flamethrower called Burner, but you'll also pick up mercenaries with equally silly names that are adept with using lasers, homing missiles and grenade launchers. Each character effectively becomes an extra life, making it that little bit easier to complete your mission, and you can switch between them at any time by pressing the Start button.

In addition to acting as a place to recruit new team members, the tent can also be used to enhance their firepower and speed and it's even possible to increase their health and revive them, providing of course that you've picked up enough medals (*Mercs*' currency) while you're out in the field. Suitably challenging, even on its normal difficulty, Sega's excellent adaptation of Capcom's action-packed arcade blaster still proves that you certainly don't need any friends handy in order to have a great time. ✱

THE MAKING OF ARCANUM

Of Steamworks & Magick Obscura

After wowing gamers with Fallout, Tim Cain and Leonard Boyarsky parted ways with Interplay after falling out over the direction of its sequel. Here, they explain how that decision led to Troika Games' first big hit

Words by Robert Zak

IN THE KNOW

- **PUBLISHER:** SIERRA ON-LINE
- **DEVELOPER:** TROIKA GAMES
- **RELEASED:** 2001
- **PLATFORM:** PC
- **GENRE:** RPG

There have been several watershed moments in the history of videogame RPGs. There was 1981, when the *Ultima* and *Wizardry* series first landed. Then we had *Ultima Underworld* in 1992, before *Fallout* (1997) and *Baldur's Gate* (1998) set the genre on the critical path to the modern day. *Arcanum* is an elegant and ambitious game that arrived towards the end of that computer RPG wave, though in some ways it sat at its very crest.

As lead developers behind the original *Fallout*, Tim Cain and Leonard Boyarsky were two of the top figures behind the rise of computer RPGs in the late Nineties. The pioneering duo were in line to continue building their legacy, and worked on *Fallout 2* for much of its development, but their visions for the game didn't align with Interplay's. The publisher saw *Fallout* as a franchise and wanted to make it more pop-culture savvy and self-referential, which clashed with Tim and Leonard's more systemic, more hardcore RPG sensibilities.

Tim and Leonard walked away from *Fallout 2* during development to establish Troika Games along with fellow *Fallout* developer Jason Anderson in 1998. Driven by an unfettered vision to create an RPG that would truly be their own, the developers would pile into one another's houses to start conceptualising *Arcanum*, a steampunk RPG that they always knew would be niche next to the growing juggernaut that was *Fallout*.

Arcanum gave the former *Fallout* devs the freedom to implement the tone they couldn't push through at Interplay. "We felt *Fallout 2* pushed the silliness a little too much," recalls Leonard. "Tim and I like this balance between my dark humour and his silliness. It's a tug of war in a good, creative way. We'd have taken it [*Fallout 2*] in a different direction tonally, and that direction is where *Arcanum* went."

Tim goes into more detail about how *Arcanum* ended up being home to many of the ideas he and Leonard envisioned for *Fallout 2*. "The huge, continuous overland map, a character background feature where choosing how you grew up changed your character stats. Even the game's background feature, with automatic tiling and procedural vegetation, were things we wanted in *Fallout* but never had the time to make."

[PC] Few RPGs at the time could compete with *Arcanum* for the number of weirdos and misfits you could recruit to your party.

But *Arcanum* is far more than just the final resting place for ideas originally intended for *Fallout 2*. The game breaks away from the norm of high fantasy (or post-apocalyptic) RPG settings to take place in a steampunk world where an industrial revolution and the rise of machinery, guns and other advanced technologies caused a rift with the old ways of magic. It is a high-fantasy world, yes, but a few hundred years on from when those games are usually set.

It's a fascinating premise, and one that weaves through every aspect of the game. Technology and magic conflict with each other to the point that one of them stops working if the presence of the other is too strong.

Mages, for example, can't practice their craft in the presence of engines and steam trains, which overwhelm their powers, while lesser technologies will break when there are strong magical miasmas in the air. Even your character development is defined by that tension between magic and technology, with certain skills and spells being locked off once you gain enough aptitude one way or the other.

This concept fits better with the role-playing and narrative aspects of the game than the actual mechanics. The magic-technology dichotomy

Art supplied by gog.com

"I SEEMED TO BE THE ONLY ONE DEFENDING THE ORIGINAL SYSTEM, SO I REMEMBER THINKING, 'EVERYONE WANTS THIS, I MUST BE WRONG'"
Tim Cain

is infamously unbalanced in *Arcanum*, with those wishing to play a debonair steampunk gunslinger having a much rougher time than magic-based builds. "Magic was completely unbalanced in *Arcanum*," admits Tim. "The time needed to make a balancing pass was lost when other features ran over their scheduled times."

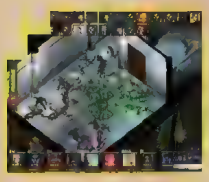
The balance went further out of whack when the game's skill system was changed late in development. The main change was that skill levelling was converted to a single-point system from one in which higher level skills cost more to level. Tim, who was in charge of the game's combat and character design, was the only holdout at Troika at the time for the original system.

"That is one of my biggest regrets," rues Tim. "I seemed to be the only one defending the original system, so I remember thinking, 'Everyone wants this, I must be wrong,' so I changed it to a single-point cost system to try to fix the imbalances. I was not successful. The worst part? When one of my Troika coworkers, the guy most vocal about me needing to change the skill system, turned to me a few weeks after we shipped and said, 'You never should have changed that.'"

"We all wore him [Tim] down and I take my share of responsibility for that," says Leonard. "In hindsight, I wish we'd stuck with our original vision for the skill system."

But this was probably the most significant point of friction in an otherwise harmonious project. Tim, Jason and Leonard were joint CEOs, and every major decision had to be unanimously agreed upon. Instead of causing rifts about what should go into the game and what shouldn't, this structure instead resulted in pretty much everything the trio envisioned making the final cut.

With little oversight from Sierra, which remained hands-off, the team was creatively let loose, much like it was with the original *Fallout*. So when we ask Tim and Leonard about any interesting ideas that were left on the cutting room floor, they have nothing for us. "Tim called it our 'kitchen-sink game'," says Leonard. "Every idea that we had went in. We wouldn't cut things, we just said, 'This is the game. This is what we're doing.'"



DEVELOPER HIGHLIGHTS

ARCANUM: OF STEAMWORKS AND MAGICK OBSCURA
SYSTEM: PC
YEAR: 2001

THE TEMPLE OF ELEMENTAL EVIL (PICTURED)
SYSTEM: PC
YEAR: 2003

VAMPIRE: THE MASQUERADE - BLOODLINES
SYSTEM: PC
YEAR: 2004

[PC] Combat isn't *Arcanum*'s strength, which is a shame because you spend a lot of time doing it.

MAKING MAGIC

THREE WAYS ARCANUM FLOURISHED UNDER TROIKA

WEIGHTY PLAYER CHOICE

Arcanum remains unmatched when it comes to letting the player shape the game world. Even top modern RPGs, like *Fallout 4* and *The Witcher 3*, don't allow the player to kill any NPC or offer so many ways to complete a quest. Only games like *Divinity: Original Sin II* and *Kingdom Come: Deliverance* come close to *Arcanum*'s level of player agency.

ALTERNATIVE RPG SETTING

Troika Games wasn't afraid to go alternative with the settings for its RPGs. Both *Arcanum* and *Vampire* pushed their respective steampunk and gothpunk styles at a time when RPGs generally stayed in 'safer' high-fantasy worlds.

SHARED COMPANY LEADERSHIP

Removing the hierarchy at the top of Troika Games was a bold move, but Leonard, Tim and Jason were so well-aligned with one another that their visions for *Arcanum* were all realised. The project struggled with organisation, but was nevertheless a lesson that you didn't need a single big boss running the show to create a great game.

HOW TO PLAY TODAY

When *Arcanum* first launched, it brought with it a rabble of bugs and glitches that were never fully fixed by Troika Games. Thankfully, the game has gathered such a cult following that there's an ongoing patch project (Unofficial Arcanum Patch) over at the still-popular terra-arcanum.com.

The patch squashes bugs, unlocks widescreen resolutions, and bundles in all the developer-made mini-campaigns with the game. During installation, you can also add optional content like the race mod, which lets you play as orcs, ogres and dark elves, and various content that was removed by Troika before *Arcanum*'s release.

What Arcanum's leads did next

The further adventures of the magic trio

Leonard Boyarsky

Shortly after Troika's closure, Leonard was hired by Blizzard as lead world designer for *Diablo III*. He worked on the popular hack-and-slash for ten years before joining Obsidian Entertainment in 2016, where he was reunited with his buddy Tim Cain to work on *The Outer Worlds*.

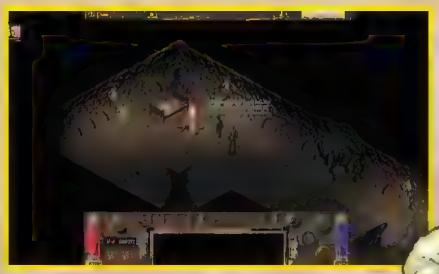
Tim Cain

Between 2007 and 2011, Tim worked on an MMO for Carbine Studios that never came to fruition. In 2011 he joined Obsidian Entertainment – a studio composed of BioWare and Black Isle Studios alumni – and worked on RPGs *Pillars Of Eternity* and *Tyranny*. In 2019 he finished working on *The Outer Worlds*, working alongside Leonard Boyarsky for the first time since Troika.

Jason Anderson

Jaded with the games industry following Troika's collapse, Jason went into real estate for a couple of years, before being rehired by Interplay to work on an MMO. That never materialised, but Jason went on to write the story for InXile Entertainment's *Wasteland 2*. He left InXile in 2011, but rejoined the studio in 2019 as a game director for *Wasteland 3*.

[PC] You could turn even the most casual conversations deadly with a charmingly frank turn of phrase.



[PC] The Conjure Spirit spell let you speak with the spirits of the dead - great for those who prefer to kill first, speak later.

Arcanum really thrives in the quest design. Even if every main NPC in the game is killed, it can still be completed. At the same time, it is unafraid to lock players off from large chunks of content based on their decisions and character development. More than most games of its time – or since – *Arcanum* expertly manages that RPG tension between player freedom and consequential decision-making.

The ring you receive right at the start of the game, for example, is the first item to set you on course for the main questline. The default path will probably see you asking around at a local town about the ring's origin, before going to the big city of Tarant and tracking down the inventor Gilbert Bates. But you can sell the ring, if you like, and instead use your sneaking skills to break into the Bates mansion in Tarant. Or you could just kill interested parties, then go through their belongings or speak with their spirits for clues. There is always an alternative.

'Brigands At The Bridge' is an early-game quest where you need to deal with some highwaymen blocking your path out of the village of Shrouded Hills. You can kill them, persuade them to let you pass or do some work for them. Do the latter, and you get tipped off about the Thieves' Underground, which unlocks a whole path of deceit and skulduggery for evil-leaning characters. Your decisions in Shrouded Hills ultimately dictate whether the town flourishes or falls apart at the end of the game.

In perhaps the biggest showcase of how disruptable the world is (and one of Leonard's favourite quests), you can even destroy the city of Tarant. "I don't know a lot of people that did it, but there's a half-orc in Tarant who's leading an uprising," says Leonard. "If you had the right skills and information, you could talk him into unleashing the orcs and destroying Tarant." Doing so would wipe out all the traders, quest-givers and NPCs in the city, yet *still* you could complete the game.

This kind of emergent gameplay seems like it would require some serious preplanning and an intricate web of mind-mapping to pull off properly. But in true Troika style, that wasn't the case.

"You'd think that there was this grand plan about how it would all fit together, but it was more like flying by the seat of our pants," recalls Leonard.

Arcanum: Before and after

A brief timeline of Troika's success

1997

Following the success of *Fallout*, Tim Cain, Leonard Boyarsky and Jason Anderson begin working on *Fallout 2* for Interplay. Differences between the three developers and Interplay about the game's tone and marketing result in the trio leaving Interplay, with the goal of making their own role-playing games more in the spirit of the original *Fallout*.

1998

Tim, Leonard and Jason found Troika Games and immediately get to work on *Arcanum*. The devs are working in one another's houses and struggle to find a publisher until Sierra's Scott Lynch, an RPG fan, gets Sierra on board as publisher.

2000

Before *Arcanum* is released, Tim Cain announces a sequel, *Journey To The Centre Of Arcanum*. It was to be one of the first games to use Valve's Source engine. The deal was again arranged by Scott Lynch, who was working at Valve at the time.

2001

After an untroubled development, *Arcanum* gets released and sells well (making back over four times its development cost, according to Tim Cain). Based on previous talks with Sierra, Troika expects to start working on the sequel, but financial troubles and restructuring at Sierra cause the project to fall through.

[PC] Fast-travel is the best way of traversing the map, but you can manually run across the procedurally generated world, too.

[PC] *Arcanum* isn't afraid to delve into the sordid underbelly of its ostensibly high-minded society.

[PC] The log system isn't very organised, but it helps quests feel like investigations rather than just checklists.

[PC] Magnus the dwarf is a good guy, which means he wouldn't join your party if you have a propensity for evil.

[PC] Mouth off to the papers about surviving the zeppelin crash and you'll soon have assassins at your door.

"YOU COULD SPEND GAME MONTHS WANDERING THE CONTINENT, DROPPING ITEMS IN DIFFERENT SECTORS AS YOU WENT, NEVER ENCOUNTERING LOAD SCREENS IF YOU STAYED OUTDOORS"
Leonard Boyarsky

"We'd be talking about the plot point, figuring it out, then suddenly ask, 'Okay, what happens if the player kills this NPC before you even talk to them. Or if you steal that ring...' We'd come up with stuff to deal with that."

But such freedom wouldn't be possible without the cogs and well-oiled machinery in the engine room. Tim designed *Arcanum*'s game engine, as well as the map editor and scripting tools. It was all so easy to use that Leonard – who describes himself as very much an artist and hardly technical – was able to get involved in the game's scripting and mapmaking.

"The tools were probably too powerful," recalls Leonard. "We did crazy stuff with reactivity. We had so much power at our fingertips. I was making maps (which I'd never done before and maybe that shows in the gameplay), writing and scripting at the same time. It was an effective way to make content. As you're figuring out how to put it in the game you're seeing all these things that you didn't think of before, so you can change the content to work better with the tools."

The *Arcanum* engine was surprisingly robust, capable of procedurally generating an overland map "the size of the US", according to Tim. "You could spend game months wandering the continent, dropping items in different sectors as you went, never encountering load screens if you stayed outdoors. And any sector you revisited was exactly how you left it. Dropped a sword among some flowers under a tree in some random meadow? It will be there when you come back."

Arcanum isn't a perfect game, carrying with it all the bugs and imbalances that have, if anything, become a standardised feature of RPGs that bear the lofty promise of untethered player freedom. With so many permutations of characters you could build in the classless system, ways of completing quests and decisions that affect the game world, it was impossible for the 14-strong development team at Troika to account for everything.

But in offering such a wild frontier of role-playing possibilities, *Arcanum*, for all its flaws, remains an exemplary RPG – a hotbed of bold ideas and quests that intermingle and unfold in ways that never stop surprising the player. The game was Troika's biggest commercial success too, teasing a promising future for the studio that ultimately failed to materialise.

Crucially, *Arcanum* showcases the potential for a project with shared leadership and unanimity in decision-making to succeed. All the team's chaos and creativity – the magicka and tech – was embodied in the final game, showing that the two forces could come together to create something special after all.

Tim looks back fondly on Troika's company structure. "Everyone told us it was a horrible idea, but it seemed to work out... except for the part that we lost our company!" Leonard laughs. "But in terms of us getting on and running a company that way. At the end of Troika we were just as good friends as when we started". *

2002

Despite an *Arcanum* sequel failing to materialise, Troika finds publishers for two new games. *The Temple Of Elemental Evil* is an RPG based on the *Dungeons & Dragons* 3.5 ruleset, to be published by Atari. *Vampire: The Masquerade – Bloodlines* is an RPG set in the World Of Darkness, to be published by Activision. The two games are to be made concurrently by two separate teams at Troika.

2003

The Temple Of Elemental Evil launches. It sells worse than *Arcanum* but earns a reputation among *D&D* fans as one of the purest videogame representations of *D&D* rules. The game famously features a gay relationship option, which draws ire from a vocal minority of gamers who believe that gay characters don't belong in videogames. How times change... though still maybe not enough?

2004

Vampire: The Masquerade – Bloodlines launches. Lacking resources and proper project management, the game goes through development hell and eventually gets released in an unfinished state. While it would go on to become a cult classic with the help of numerous fan-made patches to fix the game, it sells poorly upon release, putting Troika into deep financial trouble.

2005

Various projects fall through for Troika – including a *Lord Of The Rings* game for Sierra and a post-apocalyptic RPG that later turned out to be a pitch for *Fallout 3* (for which Troika is outbid by Bethesda). Unable to find the funds to stay afloat, Troika closes its doors in February 2005.

ULTIMATE GUIDE

サクラ大戦

SAKURA WARS

ATTENTION-SEEKING CLAIMS OF BEING THE BIGGEST GAME YOU'VE NEVER PLAYED CAN USUALLY BE POLITELY IGNORED – UNLESS IT'S SEGA'S SAKURA WARS. ON THE CUSP OF THE SERIES' SECOND ENGLISH RELEASE, WE TAKE A LOOK AT THE GAME THAT STARTED IT ALL

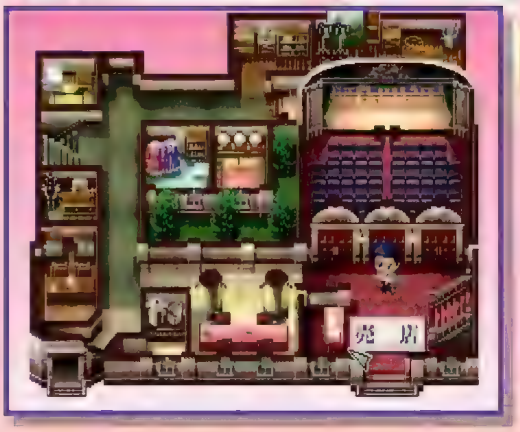
WORDS BY KERRY BRUNSKILL

First released on the Saturn in 1996, Sega's adventure/strategy RPG hybrid has always been easily passed over by importers. This is largely thanks to its dense paragraphs of Japanese text (only very recently overcome with the aid of a fan-made translation patch) coupled with an appearance that superficially resembles the endless supply of nigh-identical dating sims happily devoured overseas. These factors have understandably contributed to what could be described as 'tepid' English-language interest – a terrible shame for a series that is to Sega what *Final Fantasy* is to Square Enix. More than a polished new release guaranteed to leave a hefty dent on sales charts and sell oodles of merchandise, these games are a 'I'm definitely phoning in sick on launch day' level event. It's the sort of series that sees fans eagerly pore over every last morsel of information in the months before release, where hype can build up over details as minor as uniform redesigns and staff announcements. A setting that generates so much affection for its main cast, it has spent the past 24 years delighting Japanese fans with a slew of sequels, spin-offs, remakes, stage shows, movies and more. Sega's marketing department may know how to milk the series for all it's worth but it's the quality of the games themselves that has given *Sakura Wars* a place in the hearts of series devotees for all these years: somewhere the writing makes the characters feel so alive, and the story puts the player at the centre of such a special experience, that becoming immersed in it feels like nothing less than coming home.

This early 20th century steam-powered setting is viewed through the eyes of naval ensign Ichirou Ogami, a hot-blooded young man hoping to embark upon a career move that will see him gloriously leading a defence force against any outside threats that would dare harm Japan. He soon finds himself working as a confused and apparently slighted ticket clipper, serving in the lobby of an all-female theatre group, with not a drop of Japan-defending in sight. This unexpected job reassignment is, of course, all part of the plan, as the theatre and its workers secretly serve a dual purpose: they're popular entertainers during peacetime who become fearless protectors of the public should the forces of darkness rise from the depths of hell.

Even in this first outing, the cast are a reasonably varied bunch, hailing not only from different parts

» [Saturn] The game's turn-based battles take place on a traditional strategy RPG grid.



» [Saturn] At certain points in the story, players can freely wander around the theatre, triggering optional events and conversations.

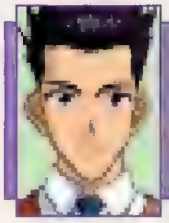
» [Saturn] Emotional scenes range from the deadly serious to dead funny.

» [Saturn] High-quality FMV is used frequently to show important events.

of Japan but as far afield as Europe and China, too. They all possess their own identities and insecurities that influence their behaviour during the course of the game, and are focused on in turn as the plot moves on before being inevitably overcome with Ogami's assistance, beautifully building the Flower Division into an interwoven team born out of empathy, shared experiences and petty bickering. There is an overarching and ultimately linear plot at work here – Ogami can't wake up one morning and quit, or fail to recruit someone, or treat anyone so badly they never speak to him again – but it soon becomes clear that the plot's apparent restrictions are in reality ▶

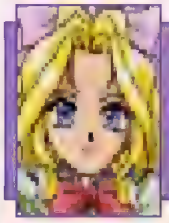
Meet The Cast

FLOWER DIVISION'S BEST AND BRIGHTEST



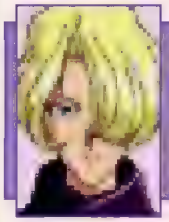
ICHIROU OGAMI

SAKURA SHINGUJI



IRIS CHATEAUBRIAND

SUMIRE KANZAKI



MARIA TACHIBANA

RI KOHRAN

KANNA KIRISHIMA

Conversion Capers

WHICH VERSIONS OF SAKURA WARS BROKE A LEG?

Saturn

This is where is all started, back in 1996. At the time, the suits at Sega didn't seriously expect the game to be the enduring success it would swiftly become, but the high critical praise and even higher sales it received on release soon set the record straight.

Dreamcast

A very careful remaster rather than a full remake, at first glance this seems very similar – too similar, perhaps – to the Saturn original. The subtle graphical enhancements may not feel awe-inspiring but there's no doubt it's the prettiest standard version of the game.

PC

Virtually identical to the upgraded Dreamcast version, bar a few minor changes that anyone other than superfans would struggle to notice without running the two side-by-side. This release also has the distinction of receiving an official translation into Russian.

PS2

Arguably the definitive version of the first adventure, this exclusive PlayStation 2 overhaul features screen-filling artwork as standard, all-new events, and incorporates various improvements and expansions to both the LIPS and battle systems pulled from later games in the series.

▶ a welcome feature, giving the player freedom to prod and poke at the characters as they see fit, and form relationships with them that aren't based on optimal stat-boosting decisions or designed to artificially steer the game towards an alternative ending, but true personal choices that are allowed to emerge naturally as the plot unfolds. This narrative leeway also affords the writing breathing space to give its stars the full spectrum of emotions, presenting the player with scenes where showing the other members of the Flower Division as annoyed, tired or making mistakes isn't considered a failure on their part, but a unique opportunity to explore the characters in a humorous way that wouldn't be possible if 'wrong' dialogue choices had the potential to cause lasting harm.

All of this event-based interaction is handled using 'LIPS' – that's 'Live Interactive Picture System' – a design feature that at the most basic level adds a timer to dialogue selection boxes, forcing players to pick something, *right now*, or be shown up as an unresponsive dullard with nothing to contribute to the topic at hand. This simple twist turns what would normally be genre-standard multiple-choice responses into fast-moving interactive scenes where the player's awareness and input has a direct impact on the outcome of any conversation.

There comes a time when the talking has to stop, and the only way to hold back the demons terrorising a city is to get out there and hit them with something big and sharp, and at these fixed points in the tale, the by-now-familiar adventure-style scenes give way to tactical showdowns that vaguely resemble *Front Mission*, if all the serious camouflage paintwork had been covered with delicate pastels and everyone burst onto the battlefield doing their best colour-coordinated impression of a Power Ranger. 'Turn-based mechs on a grid' is where these superficial similarities begin and end, with *Sakura Wars*' skirmishes being so bare-bones there are no levels to gain, no equipment to buy and little else to worry about beyond hitting things until they fall down, while making sure the enemies don't do the same to the Flower Division first. This may sound deeply disappointing but it's important to consider the intent behind this gross simplification. Normally the sort of game that has tactical battles in it would be a game where the fights form the bulk of the action and the surrounding story only existed to tie everything together and give boss chatter a bit of emotional depth – and when judged by these standards *Sakura Wars* is nothing short of an embarrassment. Fortunately for the game, the *real* purpose of these fights is to repackage the strong storytelling found everywhere else in a different format, and as the plot invariably involves the brave cast under Ogami's fearless leadership coming out on top and performing a victory pose together afterwards, before getting back to rehearsing for their next big stage show, it's no wonder the focus is on the heroic joy of sweeping away their foes than trying to present players with an in-depth challenge.

That desire to get the player to walk a mile in Ogami's shoes, living life as one member of an extraordinary group – eating with them, laughing with them, fighting by their side – is the key to *Sakura Wars* success and the core component that sets it apart from the lesser imitators that have come and gone along the way. Playing as the leader of the Flower Division isn't a chance to romance an attractive woman or stomp around in a mech, it's an honour – *our* honour. ✱

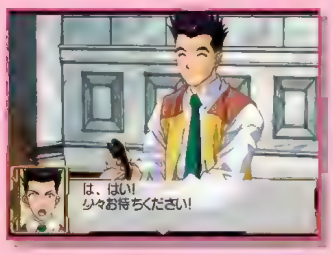
» [Saturn] Special attacks can damage multiple enemies at once.

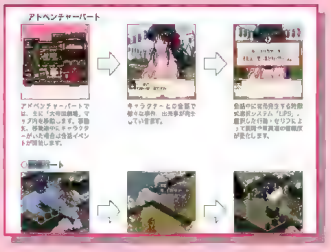
PSP

A single UMD houses the complete first and second *Sakura Wars* games, with only a few space-saving compromises along the way. This release draws its visuals from the Dreamcast port, with a few things shuffled around to better suit the handheld's widescreen display.

Mobile

Released in 2006, this Mega i-mode port manages to squeeze *Sakura Wars*' voice work and FMV sequences into phone-sized chunks. Something of a novelty, this version's only real points of interest are a handful of exclusive pieces of artwork interspersed throughout the game.





» [Saturn] *Sakura Wars* often uses situational character art to show changes in mood.

制限

Setting The Stage

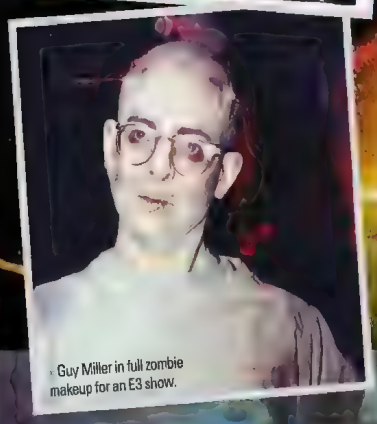
WHAT TO EXPECT FROM THE NEW PS4 RELEASE

Known in English simply as '*Sakura Wars*', this year's PlayStation 4 game won't be the first official English-language entry in the series – that honour went to the fifth main game, *Sakura Wars: So Long, My Love*. But as befitting of that straightforward title, this game is intended to be a true fresh start, which naturally makes it a great place for series newcomers to jump in. The fresh-faced main cast – led but not overshadowed by the old – follow the same quality formula that has steered the series to such great acclaim for more than two decades, coming across just as likable and quirky as the old Flower Division ever were. *Sakura Wars* often fondly echoes past glories but is always careful to celebrate rather than mindlessly ape all that came before it, and the result is a forward-looking game where many key features are completely different but still feel extremely familiar all at the same time. The hand-drawn artwork that served the series so well for so long may have finally gone but the expressive motion of the detailed cel-shaded models more than make up for what was lost. The battle system also follows suit, ditching the old turn-based approach and putting its eggs in an all-out action basket. It should be too different to work, yet, as with everything else, the aerial combos to wall riding feel so natural they come across more as an evolution of the original than an attempt to erase everything before it.

THE MAKING OF SHADOW MAN

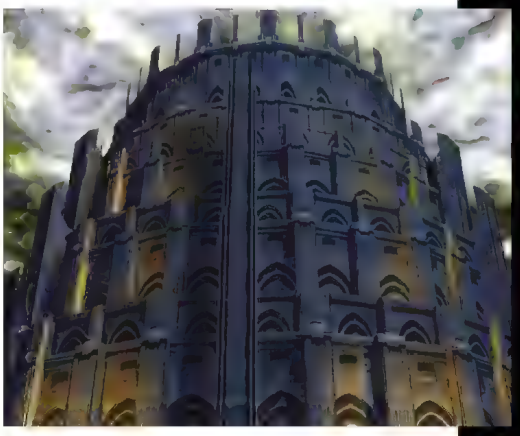
IN 1994, ACCLAIM ENTERTAINMENT PURCHASED POPULAR COMIC PUBLISHER VALIANT. FIRST CAME TUROK – THEN THIS GOTHIC TALE OF MICHAEL LEROI, A VOODOO WARRIOR CHARGED WITH PROTECTING THE WORLD OF THE LIVING – FROM THE WORLD OF THE DEAD...

Words by Graeme Mason



» Guy Miller in full zombie makeup for an E3 show.

» Trevor Storey (far left) and Nick Patrick (fourth left) relax in their local pub with other Acclaim Teesside staff.



» [PC] The asylum was a superbly-designed Gothic location.

The early-to-mid-Nineties proved to be a successful period for Acclaim Entertainment. *Mortal Kombat* was raking in the dollars, and with the millions invested by cable company Tele-Communications Inc burning a hole in its pocket, Acclaim was looking for companies to acquire. Valiant Entertainment was founded in 1989, partly by Marvel alumni Jim Shooter and Bob Layton. The comics industry was approaching its peak, which was reached around four to five years later when Valiant's venture capital investor, Triumph, sold Valiant to Acclaim. As Acclaim's CEO, Greg Fischbach, told **Retro Gamer** in issue 149, "We paid 75 million dollars [for Valiant] and lost a shitload of money. It was a banker. They were the third biggest comics company, and we were looking for something else to invest in." Acclaim took over publication of Valiant's line of comics, and naturally eyed up several titles as potential videogames. "But we bought into the comic book business right at the top of the market," continued Greg, "and then all of a sudden it starts to fall apart. And we rode it all the way down."

Acclaim's first cross-media product was an obvious choice in *Turok: Dinosaur Hunter*. Dinosaurs were back in vogue thanks to the *Jurassic Park* franchise and *Turok* became a massive hit, particularly on the Nintendo 64. It was developed by Iguana Entertainment, based in Austin, Texas, and in addition to Valiant, Acclaim was busy acquiring more games developers and subsuming them as satellite development studios. In the UK, Optimus Software, founded by Jason and Darren Falcus in 1988, would become part of the American company.

"We were a small team in the northeast of England, working on games for a few major publishers such as Codemasters and Gremlin," explains Jason Falcus. "Our first employee, Adrian Ludley, emigrated to the US and ended up working for Iguana Entertainment." When Adrian hooked up his former employers with the CEO of his new company, Optimus Software soon became Iguana UK and subsequently Acclaim Studios Teesside when it purchased Iguana Entertainment. After the success of *Turok*, Valiant's line of comics were scrutinised for further possible videogame franchises. "Acclaim sent a load of Valiant comics to our studio and asked us if we'd like to pitch for a game based on any of them," Jason continues. "We looked through them all and *Shadow Man* stood out as being perfect for the transition to videogame. We felt it filled the gap in the market for a platform adventure game with a darker, more mature theme, as well as a rich storyline."

> **"WE BOUGHT INTO THE COMIC BOOK BUSINESS RIGHT AT THE TOP OF THE MARKET"**
> GREG FISCHBACH

Shadow Man is the story of Michael LeRoi, an undead voodoo warrior caught between two worlds: our world, the Liveside, and the Deadside, a grim and dangerous place where all souls eventually reside. The game begins in 1888 as legendary serial killer Jack The Ripper prepares to take his own life, disappointed the unearthly powers his killing spree was meant to unlock has not materialised. Enter Legion, a powerful being seeking to recruit five serial killers, each harbouring a dark soul that he plans to use to create an immortal army. Legion's target: Liveside.

Acclaim Teesside assembled a team of approximately 20 people to work on *Shadow Man*. A budget and timescale were set although, as was fast becoming common, these changed over time as the scope of the game was extended. Development began in 1997. Creative director

» [PC] *Shadow Man* offered a wide array of interesting demonic enemies to take on throughout the game.

[PC] The game created a fantastic mix of otherworldly imagery against the backdrop of familiar environments

Guy Miller and senior designer Simon Phipps began storyboarding their ideas on how the game would work; graphic artists such as Trevor Storey and Nick Patrick began digitising this vision, and a group of programmers including Paul Taylor and Jonathan Ackerley set about organising the nuts and bolts beneath the hood. Ex-Ocean audio expert Tim Haywood was another vital cog in the *Shadow Man* machine.

On his personal website, Simon Phipps details a slightly different account of how the *Shadow Man* project started. "We were asked by Acclaim's head office in New York to come up with a 3D horror adventure... along the lines of *Resident Evil*, but in full 3D." A small team within Acclaim Teesside created a proposal that focused on Thomas Deacon, an ex-NYPD cop who had assumed a new career as a demon hunter. Simon also recalls the material Teesside was sent when its proposal was not taken up. "The comics were *Ninjak, Magnus Robot Fighter, Bloodshot, Trinity Angels* and *Shadow Man*, penned by Garth Ennis and illustrated by Ashley Wood...[*Shadow Man*] had been running for about five issues, so it was very easy for us to slot into the timeline and expand the world of Deadside. The premise we worked under was, simply, that if there is no Heaven or Hell and everyone who dies goes to Deadside, then what happens when the really bad people get organised and decide they want to come back?"

» [Dreamcast] Sega's last console received a decent port of the PC game, and it was well-regarded by magazines of the time.

"IT WAS AN OPPORTUNITY FOR US TO SHOW WE COULD CREATE A NEW GAME IP, AND MAKE OUR MARK AS A CREATIVE FORCE"
Jason Falcus

Studio head and development director Jason Falcus kept a close eye on all of the different projects within Acclaim Teesside. "*Shadow Man* was very close to my heart," he says, "as it was an opportunity for us to show we could create a new game IP, and make our mark as a creative force. It was an excellent storyline – it took the main characters from the comic and added in a fantastic mix of original characters and some really imaginative locations between the two worlds. Jack The Ripper was a particularly brilliant addition. I don't recall we considered other real-life serial killers, but I'm sure they were heavily inspired!"

» Trevor Storey relaxes in Acclaim Teesside's rec room

However, as coder Paul Taylor explains, another Valiant property was also being developed concurrently. "I joined in 1997 and worked on a game based on another of Valiant's characters, Bloodshot," he reveals. "There wasn't much to *Shadow Man* at that stage, but the plan was to use its game engine to give *Bloodshot* a jump-start." With the latter project, now a Vin Diesel movie, suffering from a lack of direction and a focus on PlayStation-to-PC development (which caused the eventual dropping of the *Shadow Man* engine and too much time spent rebuilding the tech), it was inevitable that *Bloodshot* would be put on hold as *Shadow Man* grew steadily. "I was absorbed into it to help with gameplay programming on the PC version," remembers Paul, "and this typically involved receiving a large sheet of paper

» A selection of Trevor Storey's *Shadow Man* memorabilia.

with a map of the game level, the level mesh and a bunch of assets from the artists. It was my job to plug these together so that all the tricks and traps worked, doors unlocked when you operated a particular button, cable cars moved when you entered them, cutscenes triggered at the right moment, and so on."

But perhaps Paul's most vital role was the creation of an animation system. "The artists could animate characters just fine, but there was nothing in place for other objects, which had to be done in code. This included doors opening and closing, sliding platforms and, the one I'm most proud of, a big hammer that swings down and strikes a monolith, forming a bridge." The PC version of *Shadow Man* was initially its only planned platform. Having had much success on various consoles, Acclaim was keen to grow its PC market share. When the game expanded to consoles, Acclaim held back the completed lead PC version as the other versions were finalised.

While the driving force of the story remained with Simon Phipps and Guy Miller, artists such as Nick Patrick and Trevor Storey also had important roles in shaping the unusual look and design of *Shadow Man*. "I started as lead artist and worked as a level builder, effects and front end designer," says Trevor. "I thought the story was cracking and [it] really swept us along during development." Nick Patrick, who began as a concept artist on the project, agrees. "Guy and Simon really pushed to keep a story to the game and make it unnerving and unsettling. I worked quite closely with Trevor, and we had to keep a consistent look to the levels. I do remember we played a lot of *Quake* at lunchtime back then – I think he must have been losing at one point when his mouse took off and hit me on the back of the head!"

Shadow Man had a complicated development period in terms of both design and realisation. With both Simon and Guy having worked at Core Design, comparisons with *Tomb Raider* were inevitable – if a little off the mark, according to Jason. "The success [of *Tomb Raider*] helped us appreciate the potential for such a game," he admits, "but I would say the main inspirations were games such as *Mario 64* and *Zelda*. These titles both utilised expanding 3D worlds, and we loved the way they were based around a central hub, and the world expanded as the player increased their abilities." The team also preferred the dynamic controls that Nintendo platform games often honed to perfection. "We wanted to emulate that," continues Jason.

VALIANTLY GOING FORTH

A SHORT HISTORY OF VALIANT VIDEOGAMES

TUROK: DINOSAUR HUNTER

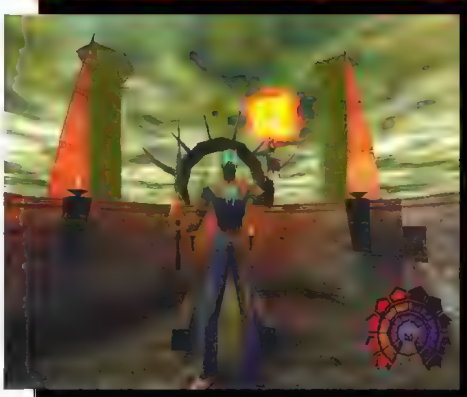
A European launch game for the Nintendo 64, Acclaim's version of the loinclothed beast-slayer was a big hit and paved the way for multiple sequels. Developed by Iguana Entertainment (Acclaim's studio in Austin, Texas), the first-person shooter had its faults, but benefitted from a dearth of similar titles on the N64. The mixed reviews of 2008's *Turok* on the Xbox 360 and PS3 appear to have ended the franchise for now, although recent remasters proved popular with gamers.

ARMORINES

Created as an adversary for superhero X-O Manowar, the Armorines were a government-sponsored team of super marine soldiers, and a logical choice for a videogame. Another first-person shooter, the game used the same engine as *Turok 2*, but was received badly, and poor sales ensured there would be no further titles in the series. A shame, as its *Starship Troopers*-style man-versus-bugs theme could have been a winner had it been better implemented.

SHADOW MAN

Despite a botched PlayStation port, the original *Shadow Man* sold decently enough to ensure a sequel was optioned, although given the original's poor effort on the Sony console, it was a little strange that *Shadow Man: 2econd Coming* only saw release on the PlayStation 2. The plot of the sequel more or less mirrors the first game, with Armageddon this time threatened by a pair of demons known as Asmodeus and Grigori. The collapse of Acclaim two years later spelled doom for the series, although the comic was rebooted for a short time in 2012.



» [PC] Mike travels between the two worlds using his final earthly possession: a teddy bear given to him by his dying brother.

READ THE ROOM

CODER PAUL TAYLOR EXPLAINS HOW A TRAGIC REAL-LIFE INCIDENT AFFECTED SHADOW MAN

"It came right at the end when we were finishing off the PC version. The infamous Columbine High School massacre took place in April 1999, and this led to the sudden and arguably misguided opinion that violent videogames were a key factor. I believe Acclaim CEO Greg Fischbach was called before a senate committee investigating the issue, or something like that. Afterwards, as a result of what was discussed, or nervousness about the public perception of violent videogames, the order came through that *Shadow Man*'s content should be toned down. Gore was cut down across the board, and as quickly as possible. I got an interesting bug caused by this rapid censoring. There was one room where the tiled ceiling bled if you shot it. The collision detection was reporting the bullet was hitting flesh, so I traced it through thinking it must be going wrong and thinking it's hitting something else, possibly outside the room. The trace didn't find anything broken, but it did reveal that there was a body pinned to the ceiling with surgical instruments. In a rush to hide this, they simply removed the textures, rendering it invisible. There are rumours of pre-Columbine copies of *Shadow Man* floating around out there, but I've never seen one."

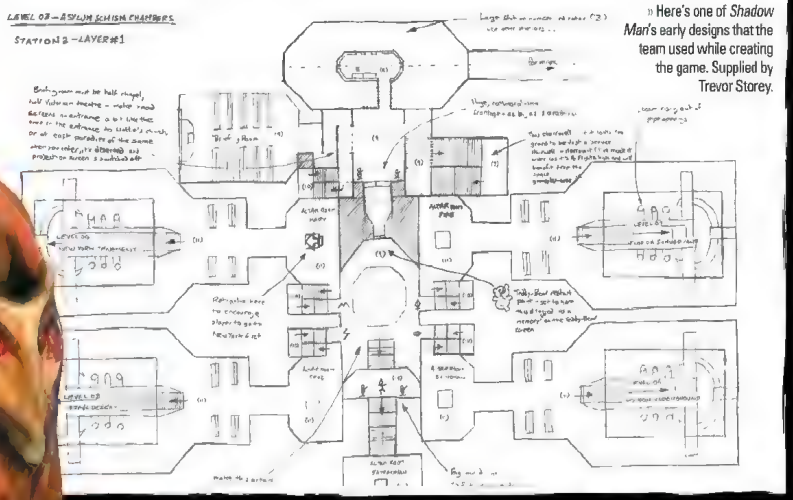
"I used to get very frustrated by the animation-driven controls of the early *Tomb Raider* games." The central hub created its own set of design issues. While *Shadow Man*'s storyline and plot was relatively simple for Simon Phipps and Guy Miller, the construction of the various levels was not so.

With the game requiring the player to revisit locations from earlier in the game, and be able to explore further thanks to new weapons and abilities, considerable thought and planning was needed to ensure everything operated logically. The designers discovered that the easiest (and fastest) technique was to sketch out a level on paper before passing it on to the world modellers who'd build, texture and light it. With the comic version of Deadside a black and desolate area, it was left to the imagination of the art department to give this part of the game its detailed and unearthly look. "I worked quite a bit on the asylum," says Nick, "so those were my favourite parts. The level design was well-planned, but when I look back now, I'm surprised how sparse it feels in places. There are quite a few long corridors with not much in; you wouldn't get away with that these days!" The asylum is a superbly-designed part of *Shadow Man*, and also used as a hub for some of the game's later levels. "Some of my favourite sections were those in the asylum," agrees Jason, "which I think was down to the weird and wonderful creatures, and also the New York tenement building which was very atmospheric and creepy."

Technically, *Shadow Man* was also a huge challenge for the studio. "We had to build all of the 3D tech and tools, including our own engine, called VISTA," continues Jason. "The design was ambitious, requiring large interior and exterior locations with seamless transitions – which at the time was quite unusual. We also wanted a dynamic animation-blending system so we could have a more versatile character control system. This allowed Shadow Man to run while aiming his two weapons in different directions." Mike LeRoi also possessed uncanny athletic abilities, his slender figure leaping around each level, grasping ledges with one hand and taking out assorted demons with the other. All of the game's controls needed to be fine-tuned so that these complex moves operated correctly.

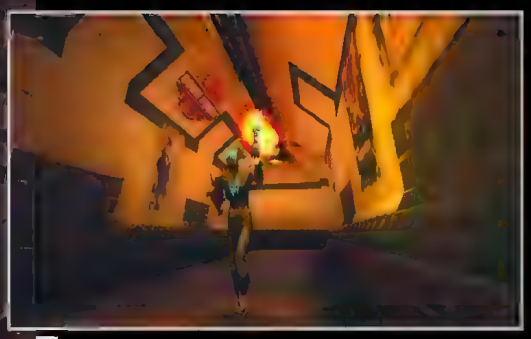
Another, perhaps overlooked, element of *Shadow Man* was its sound. Former Ocean Software employee Tim Haywood was recommended by another ex-Ocean worker who now coded for the Tees developer. "They didn't have any audio staff at all, so I had to start from scratch and set up a studio myself," says Tim. "It was exciting because I had nothing more than a PC, Sound Forge, a simple recording device and one sample CD." Tim improvised to begin with, before approval for additional equipment was granted. Soon the department had expanded to include a Kurzweil K2500R (a synthesiser), vocal processor, semi-acoustic guitar and a large sample library.

Tim's first job was providing all of the audio for *Shadow Man*. "I was audio director, composer,



» Here's one of *Shadow Man*'s early designs that the team used while creating the game. Supplied by Trevor Storey.

» [N64] The Nintendo 64 version was excellent, and comparable graphically to the PC game.



» [PC] Many of the real-world locations (such as this London Underground station) were even creepier than the Deadside.

sound designer, audio tester, voice casting, voice director, actor, dialogue editor, audio implementer, and trace show evangelist," he grins. "And it really was a blank page. We had the comic books as a reference, and I talked to Guy [Miller] and we picked various film references to draw from. The rest of the audio came from the visual style of the game and how it made me feel."

> **"WE LITERALLY TOOK THE PC VERSION AND DROPPED IT STRAIGHT INTO THE DREAMCAST COMPILER. OF COURSE, IT DIDN'T WORK"**
> PAUL TAYLOR

The prime version of *Shadow Man* (PC) implemented the Miles Sound System – primitive by today's standards, but highly effective in 1999. "When you walked through the areas of a level, you heard ambient sound coming from lots of places, and it blended very nicely for the time," recounts Tim, who despite the smaller storage of the N64, used compression technology to squeeze the speech and music into the cartridge. "We just downgraded the quality where we needed to. The PlayStation version suffered the most and had only 90 sound effects from the original 600."

Ah, the PlayStation port. While the PC, N64 and Dreamcast versions of *Shadow Man* were all well-received, things were a little different over on the Sony console. "Acclaim decided late in the day that they wanted a PlayStation version," laments Jason. Unfortunately, a lack of experience with the console, coupled with extreme time pressure meant the port was vastly inferior. It was also an unusual move for Acclaim which up to that point had forged a decent reputation based on its support of the Nintendo consoles. "We understood their reasoning – it was a big opportunity to get the game on the biggest platform. But it was a technical nightmare to execute and we weren't very happy with the end result."

Sales were unimpressive compared to the Nintendo 64 in particular, probably a reflection of the mass of similar arcade adventures on the PlayStation. Mature-themed games were rarer on the N64, and *Shadow Man* neatly occupied that vacant niche. And on the Dreamcast, things were even better, as the powerful Sega console barely broke a sweat emulating the PC version of the game, and it came with optimised controls due to the lack of a keyboard.

"We literally took the PC version and dropped it straight into the Dreamcast compiler," says programmer Paul Taylor. "Of course, it didn't work… but then we chopped out all the PC-specific code until the compiler stopped complaining. But I was quite proud of it and the team behind it – we managed to pull off a decent conversion in the six months we originally estimated. Just about."

While it is inevitable that development of such a complex game caused minor disagreements, the learning experience that it became for the majority of the Acclaim Teesside team means most look back on its creation with fondness. "I loved that time," recalls Trevor, "it was working with a fab bunch, many of whom I'm still friends with today." Trevor's colleague in the art and design department, Nick Patrick, adds, "I learnt a great deal from *Shadow Man*. It was the first big 3D game that Acclaim Teesside produced as the whole industry was changing with longer development times, bigger teams and larger financial risks. It was tough – when the game went into crunch development, I seem to remember Tim [Haywood] was spotted wandering the corridors one night – he had been sleeping in his office and got up for a comfort break."

In reality, Tim had been living at Acclaim for some time during the development of *Shadow Man*, but still greatly enjoyed the development experience working on the game offered. "I lived there for about a year and had a room with a bed," he says. "There were showers and a kitchen, so I had all that I needed. But it was, and still is the best game development experience I ever had. The way it was made is the way games should be made, with deep immersion within the subject matter and total passion for the process and content." Studio head Jason Falcus admits he learned much too, considering his management role on the game. "I learned a lot about developing large-scale, original console games with a large team," he concludes, "and am proud to have been involved with *Shadow Man*. It was an ambitious project, but I think in the end it was an excellent game, and one that people still talk about today." Jason makes a very good point, as a remaster of *Shadow Man* has recently been announced by Nightdive Studios. It would appear that the adventures of Mike LeRoi are far from over.

SHADOW MAN REMASTERED

MIKE LEROI GETS A 4K MAKEOVER

Although it's highly unlikely we'll be receiving a third *Shadow Man* game anytime soon, it seems like Mike LeRoi isn't resting on his laurels.

After working on well-received remasters of *Turok: Dinosaur Hunter*, *Turok 2: Seeds Of Evil*, *Forsaken* and the rather excellent *Doom 64*, Nightdive Studios revealed that one of the games it's turning its attention to next is *Shadow Man*. The company has already re-released the original PC game on services like Steam back in 2014 after acquiring the rights from Acclaim, but it now has bigger plans for the acclaimed action adventure.

Shadow Man Remastered is currently due for 2021, it's also expected to be significantly enhanced as well. Created using Nightdive's 'Kex' engine, the new remaster will boast a 4K widescreen display, HDR rendering, dynamic shadow mapping, as well as refined art, audio and assets. The most exciting aspect, however, is the news that missing content will be included from the original game – something Nightdive has tackled before in the likes of its *Doom 64* remaster.

Add in the fact that the studio will most likely make numerous other tweaks to *Shadow Man*'s controls, like it does with virtually all its new remasters, and Mike LeRoi's future is suddenly starting to look very bright indeed.

Future Classic

Modern games you'll still be playing in years to come

Info

- **System:** PC, PS4, Xbox One, Switch
- **Year:** 2014
- **Developer:** Creative Assembly
- **Key People:** Alistair Hope (director), Jonathan Court, Ol Smith (producers)

Go Deeper

» Actor Andrea Deck plays Amanda Ripley, after *Isolation* she went to work on popular TV series like *The Crown* and *Homeland*.

» Creative Assembly's Xenomorph is ever so slightly tweaked from the original HR Geiger design.

» [PS4] While fighting the Xenomorph head-on is futile, you can temporarily ward it off with a bit of fire.

Creative Assembly's love letter to all things Alien is one of the best horror games from the last ten years. Retro Gamer explores why you should brave this space station of terror

Words by Drew Sleep

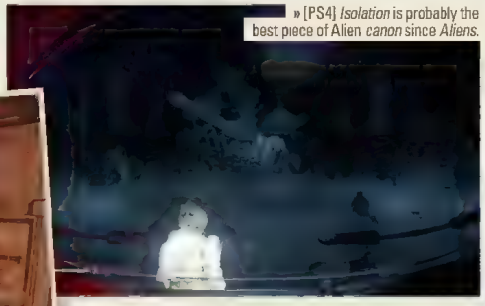
ALIEN: ISOLATION

THE BACKGROUND

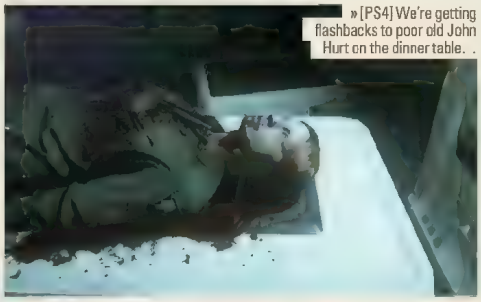
When Sega acquired the rights to develop games based on the *Alien* series in the mid-Noughties, UK developer Creative Assembly saw an opportunity. After the studio shipped *Viking: Battle For Asgard* in 2008, a small team of *Alien* fanboys pitched a rough prototype where a Xenomorph hunted down a hapless human in a game of hide-and-seek. In this initial pitch, the alien was controlled by a developer, but the idea was that in the final product, a deeply refined AI would control the creature. The idea rippled throughout Sega, and Creative Assembly soon found itself holding a golden ticket, granting it the licence to create an *Alien* horror game. While the studio possessed a deep love for the source material, it was known as a strategy game developer and lacked the knowledge on how to make a first-person horror game, so it had to staff up with specialists, bringing in developers who'd worked at Ubisoft, Crytek, Bizarre Creations and more. What that team created was a pant-wettingly perfect sci-fi horror experience, and one of the best licensed games ever made.

THE GAME

Alien: Isolation is a sequel to the original 1979 film, and before you get triggered by the words 'alien' and 'sequel' don't worry: this one's good. Set before the filmic follow-up, *Aliens*, it follows Amanda Ripley as she searches for the truth behind what happened to her mother – Ellen Ripley, played by Sigourney Weaver in the original movie. Amanda is approached by the shady Weyland-Yutani Corporation which tells her the that recorder of her mother's ship, the Nostromo, has been recovered and is residing on a space station called Sevastopol, and she's invited to retrieve it. Upon arriving at the installation, Amanda soon discovers that it's pretty much derelict, and the people she does come across are terrified and paranoid that there's *something* hunting them. Of course, that 'something' is an alien Xenomorph. Amanda finds herself trapped on Sevastopol, a mouse in a gigantic maze – with a very hungry, competent cat always on her tail – and has to find a way to escape the doomed space station, as well as locate and retrieve the Nostromo's flight recorder.



» [PS4] *Isolation* is probably the best piece of Alien *canon* since *Aliens*.



» [PS4] We're getting flashbacks to poor old John Hurt on the dinner table. .

» [PS4] Sevastopol has seen better days and is falling apart by the time Amanda arrives.

» [PS4] The alien can at times blend into the scenery, hiding in plain sight.

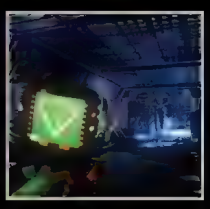
Things of note

FILMIC HOMAGE

There's lots of Easter eggs to hunt down for *Alien* overs. This particular one is a nod to the odd way Ash tries to murder Ripley in the original film.

GET OUTTA THERE!

You're given a motion sensor to help locate the alien. If you're using a PS4, the controller even beeps with it. Careful, though, the Xeno can hear it, too.



HARD WORK

The Xenomorph isn't your only problem on Sevastopol. The Working Joe androids have gone haywire and will kill you on sight.

CAST A SPELL

The cast from the original *Alien* film returned to do voice work in *Isolation* for audio logs and the DLC, adding more authenticity to the game.

RETURN TO THE NOSTROMO

Speaking of that DLC, the *Crew Expendable* and *Last Survivor* add-ons are reimaginings of the events on the USCSS Nostromo, and are a treat for fans.

What sticks out the most about *Alien: Isolation* is the sheer attention to detail. It's clear the team had deep love for the franchise, as it feels like you're walking around a film set. The retrofuturistic aesthetic is all faithfully recreated, and everything you operate comes with a chunky, tactile '*cathunk*' or '*schunk*' sound. The devs at Creative Assembly pored over tons of concept art from the films when designing *Isolation*, and it shows. That considered world design goes deeper, too, to a much more psychological level. When you're crawling through vents, for example, you might come across a pipe or wire formation that looks a little bit *too* elongated – a bit like a Xenomorph's head, perhaps? Most of the time, it's a trick of the light and you'll find yourself breathing a sigh of relief, but sometimes it's the real deal and you're as doomed as poor old captain Dallas.

Speaking of that titular alien, *Isolation*'s Xenomorph is one of the greatest videogame antagonists we've encountered, and that's largely down to its AI. In that initial pitch, CA was bold enough to infer that it'd be as smart as a human – by having a human stand in for it – and it pretty much hit the mark. While you're given tools to fight it off, they're next to useless, so your best option is to hide. You have to pay attention to where the creature might be heading as well as how much sound you're making. You can craft and use gadgets to help distract it, but you can't rely on them as the Xenomorph *learns* how to counter your mechanisms. For example, say if you frequently chuck a Noisemaker to draw the creature to a certain location, the creature will figure out to head to the object's point of origin (in other words, you) rather than its destination. Knowing that your adversary changes tactics depending on your approach is a terrifying proposition when it's a regular human, let alone a so-called 'perfect organism'. And don't think you can go and run to a save station and quickly save and load the game when things are looking dire. There's an agonisingly long pause between when Amanda slots in her keycard and the act of actually saving the game – time where the Xenomorph can pounce on you with your back turned.

WHY IT'S A FUTURE CLASSIC

Ultimately, *Alien: Isolation* is the best in class when it comes to horror, and that still rings true five and a half years after its debut. In recent years, we've seen more examples of 'pursuer' type enemies – notably Mr X in *Resident Evil 2* – and none of them come close to *Isolation*'s intelligent Xenomorph. What's most disappointing about the game's legacy is that it sold under expectations, despite its critical acclaim, and the talented development team ended up disbanding, with key players moving onto different projects, while Creative Assembly pivoted back to making strategy games. Still, we should be glad we even got *Alien: Isolation* in the first place. A true love letter to both *Alien* and horror, its structural perfection is matched only by its hostility. ✱

the 13th Doll

a fan game of The 7th Guest

Trilobyte's groundbreaking horror adventure has a group of fans who love the evil Henry Stauf and his fiendish puzzles so much that they brought him back to life with a new, fan-fuelled haunted house experience...

Words by Danny Gallagher

IN THE KNOW

- **PUBLISHER:** ATTIC DOOR PRODUCTIONS
- **DEVELOPER:** ATTIC DOOR PRODUCTIONS
- **RELEASE:** 2019
- **PLATFORM:** PC, PS4, XBOX ONE
- **GENRE:** ADVENTURE

Pretty much every adventure game fan in the Nineties with access to a computer remembers being terrified by the evil toymaker Henry Stauf and the horrors he hid in his Victorian mansion in Trilobyte's groundbreaking puzzle adventure, *The 7th Guest*.

"My grandpa got me into it," says Matt Gottshall, the lead programmer of *The 13th Doll: A Fan Game Of The 7th Guest*. "We tried to solve the puzzles together. It was a fun experience and I was young enough for the game to scare me, even though it was cheesy horror."

The 7th Guest, designed by Graeme Devine and Rob Landeros and distributed by Virgin Interactive, received attention for its effective mix of full-motion video and stunning 3D rendering following its release in 1993. It took almost two years to release a sequel, *The 11th Hour*, and even longer just to get an enticing trailer for *The 7th Guest 3: The Collector*. Rob Landeros tried twice to raise money through crowdfunding through his newly reformed Trilobyte brand but both campaigns failed to meet their goals – even with over $200,000 in donations – leading instead to two tabletop board games based on the games.

[PC] Henry Stauf's foreboding, cliff-side mansion still has the souls of his victims trapped inside of it in *The 13th Doll*.

Back in the early Noughties when the third game failed to get greenlit, one dedicated fan, Ryan HoltKamp of Iowa City, Iowa, wanted to play it so much that he decided to make a sequel of his own.

"When I found out about fan games and how *The Collector* got cancelled, I decided instead of making a game that was similar to *The 7th Guest*, why not just a make a *7th Guest* fan game?" says Ryan, the producer of *The 13th Doll*. "It all started from there."

Ryan's game isn't officially connected to *The 7th Guest*'s canon but his company, Attic Door Productions, obtained legal permission from Trilobyte and Rob Landeros to use the game's characters and settings, including Tad, the boy who (spoiler alert!) turns out to be the long-awaited seventh guest in the first game, and the nefarious Henry Stauf, played by the character's original actor, Rob Hirschboeck. Ryan and his team say it took 16 years of hard work, unexpected obstacles, fundraising and true fan dedication to bring the horror experience back from the dead as a multi-path puzzle adventure on Halloween 2019 for PC, Mac and Linux.

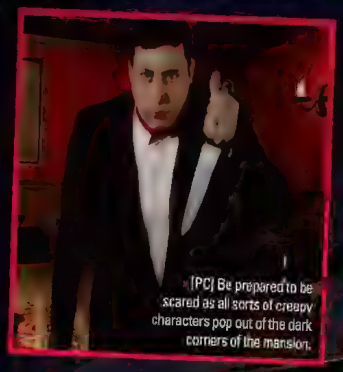
The entire ambitious project ran on the work of volunteers working from different locations until Attic Door was able to obtain over $60,000 in funding from a successful Kickstarter campaign in 2015. "We're fans first," Ryan tells us. "Part of the reason we wanted to make this game was to prove that there's life in the franchise so that they would make a third game, a third *official* game."

Ryan first started assembling his crew by reaching out to Paul Van Der Meer, a game designer and 3D modeller who ran a *7th Guest* fan site and helped with the first iteration of the game's graphics from 2004 to 2008. Then Ryan built a *13th Doll* website and started soliciting volunteers to write, design, act and compose

MATT GOTTSHALL
Lead programmer

RYAN HOLTKAMP
Producer

PEDER GOODMAN
Director of live-action production



[PC] Be prepared to be scared as all sorts of creepy characters pop out of the dark corners of the mansion.

> "WE'D DELEGATE AN ENTIRE ROOM TO AN ARTIST. IF THEY FINISHED IT, COOL, BUT IF THEY DIDN'T, THEN WE WERE STUCK IN LIMBO WAITING FOR THEM TO GO"
>
> RYAN HOLTKAMP

music for the game through the site's forum. "We have this community and part of it was built from Paul's website, so people from there joined us and we kind of went from there and it snowballed," Ryan says.

The crew worked on the game for four years but lives and careers got in the way and development on *The 13th Doll* stopped in 2008. Ryan says he put it aside after he got married and became a father. The game's coding and demos sat dormant on his computer for seven years. "We got a bunch of puzzle designs and a basis for the game put together," Ryan remembers. "The biggest trouble was artists. We'd delegate an entire room to an artist. If they finished it, cool, but if they didn't, then we were stuck in limbo waiting for them to go."

Then in 2014 while Ryan was going through a divorce, he decided to revisit *The 13th Doll* and realised that the graphics were so behind the times that they'd just have to start over again. "I just decided that I missed it," he says. "By that time, we took a look at it and basically we had to throw out everything we'd done before."

Modern innovations like the Unity engine helped Ryan and his team catch up as they made the game a second time from scratch. New faces like Matt Gottshall, who found Ryan through his website while he was studying computer programming at Michigan State University, jumped in to help.

"I think Unity allowed us to do a more modern style and model everything," Matt says. "The old engine was somewhat limited. I remember Ryan telling me the reason they were switching was because they pretty much completed the game in the old engine and he put it on his TV and it just looked terrible."

Ryan also posted a screenshot of a new crypt puzzle on the game's dormant Facebook page and it started gaining some serious attention, which drove the team to pick up where it left off, even though everyone had to start all over again. "I was kind of floored by the response this post got," Ryan says. "The post got like 150 likes overnight, which isn't a whole lot but it still showed us that this still had life in it. There was an audience for it."

One of the post's most noticeable viewers was Rob Landeros who

[PC] *The 13th Doll* picks up where *The 7th Guest* left off with Tad, left, being admitted to a psychiatric asylum. Tad is under the treatment and supervision of Nurse Vollmer (middle) and Dr Richmond (right).

[PC] Dr Richmond is taunted by the evil Henry Stauf with some of the things he desires most as he traverses through the haunted mansion of trapped souls.

[PC] This chess puzzle in the pool room pays homage to the original *7th Guest* and *13th Doll*

[PC] The Woman In White from the original *7th Guest* returns to haunt the hallways and rooms of Henry Stauf's mansion in *The 13th Doll*.

VIDEO NASTY

How the team revisited a classic genre

Trilobyte's *The 7th Guest*, created by designers Rob Landeros and Graeme Devine, showed the power of CD-ROMs games in the Nineties, ushering it out of the age of the then-outdated floppy disk. The horror-themed puzzle adventure game put real actors in 3D rendered environments to tell an immersive, engaging and frightening story. "Rob (Landeros) did a lot of the visual environments and you could see it in the monitor there," says actor Rob Hirschbaeck who plays the evil antagonist, Henry Stauf. "It was unique."

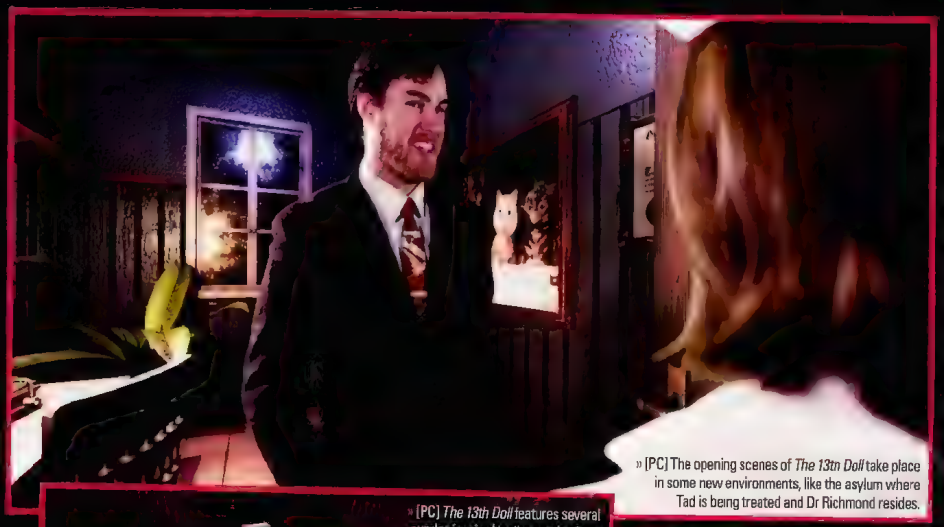
The programmers and designers of *The 13th Doll: A Fan Game Of The 7th Guest* had more advanced technology and software to make their tribute game but they still wanted to put scenes of real actors in the rendered environments. *The 13th Doll* wouldn't be a proper tribute to *The 7th Guest* without them.

"We wanted to be true to form and follow in the footsteps of the first game," says Ryan HoltKamp, the producer of *The 13th Doll*. "I don't think it would be the same if we didn't have live-action film."

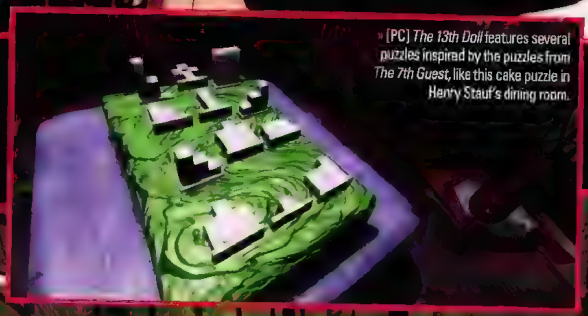
The cast acted in front of green screens, and those performances were imposed on computer-rendered environments. There were challenges with this process, such as lighting the actors properly. Peder Goodman, director of live-action production, shot them with an even color tone that he could change in post-production depending on the room or the setting of the scene.

The green screen studio, however, also provided a blank canvas for Peder and the cast to project the game's various stories and the characters' emotions and personalities. As a result, it makes them feel more alive, even in a modern game inspired by a retro style. "It's fun to see the characters as live action as opposed to just an animated character," Peder says. "You can mix and play with them and it feels like a movie but you're also playing a game."

Ryan says he's seen reactions to the game, and the style may seem outdated and quaint to modern gamers but it helps *The 13th Doll* stay true to its gaming inspirations. "I watched a group of people playing the game on Twitch and they tore it to shreds and critiqued it the whole way through but when they got done, they said, 'That's exactly what I wanted it to be,'" he says.



» [PC] The opening scenes of *The 13th Doll* take place in some new environments, like the asylum where Tad is being treated and Dr Richmond resides.



» [PC] *The 13th Doll* features several puzzles inspired by the puzzles from *The 7th Guest*, like this cake puzzle in Henry Stauf's dining room.

» [PC] Both of the game's 'paths' start at the asylum and have puzzles of their own.

eventually got in touch with one of the crew members just after his *7th Guest 3* Kickstarter campaign. Ryan started talking with Landeros and gained legal approval to use the game's characters and other assets as long as they didn't violate any trademark brands and Attic Door made it clear that it's a fan-produced game and not an official *7th Guest* sequel.

When we reached out to him, Landeros revealed that he made "a very conscious effort to avoid creative input or advice" and declined to comment on *The 13th Doll* for that very reason. He also noted that he appreciates all of the games' fans and support with their projects, and called Ryan and his crew "the mother of all *7th Guest* fans in that regard".

The Kickstarter funding allowed the team to speed up production and start planning on filming live-action scenes for the game. Footage was shot in a makeshift studio on the University Of Iowa campus in a building that was ironically enough once used as an insane asylum.

The 13th Doll has 27 puzzles that unlocks the story along two different paths of two characters: the white-suit-clad Tad (Hunter Menken), who's been admitted to an insane asylum after escaping from Henry Stauf's mansion, and Dr Richmond (Mathias Blake), who treats Tad and tries to get him to confront what he thinks is a delusional fantasy. Both end up revisiting Stauf's mansion and find themselves stuck playing his fiendish puzzles while spirits roam the halls, waiting to spring out when the player's guard is down.

One of the project's biggest shocks didn't make it into the game, because it happened to Ryan himself. He got a phone call completely out of the blue from Henry Stauf actor Rob Hirschboeck who heard about the project during its Kickstarter campaign. "I'm just working one day and I get a phone call and I hear, 'Hey, this

MEET THE CAST

The stars of The 13th Doll

HENRY STAUF

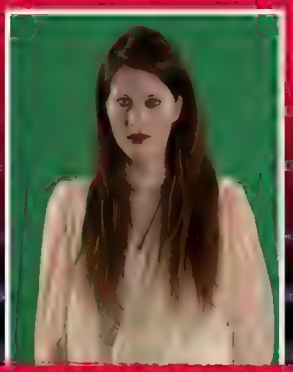
The demonic toymaker himself, played by Robert Hirschboeck, returns to torment and tempt the people who dare to enter his mansion with what they desire most – even if it costs them their souls.

DR RICHMOND

Played by Mathias Blake, he is one of the primary characters that players can follow. The psychiatrist treats Tad and takes him back to the mansion to confront his fears... only to discover that they aren't so delusional after all.

TAD

The original 'seventh guest' who is admitted to an insane asylum after the events of the first game and ventures back to the asylum to free the souls of Stauf's victims trapped in his evil mansion. He's played by Hunter Menken.



THE WOMAN IN WHITE

The etherial Woman In White, this time played by Julia-Kaye Rohlf, returns to roam the hallways of Henry Stauf's creepy mansion and provide guidance to Tad in his quest to free imprisoned souls.

is Rob Hirschboeck. How's it going?'" Ryan remembers. "I was so shocked, I almost dropped the phone." Hirschboeck says he never thought he'd get another chance to put on Henry Stauf's smoking jacket and speak his signature mix of sensuality and sinisterism. He says he was "gobsmacked" to hear that a group of fans had worked so long and so hard to bring the game and the character back to computers.

"It was kind of put together on a shoestring in both cases," Hirschboeck reveals. "The original game was kind of produced by Virgin but it was Rob and Graham. When I met those guys, it was six people in an upstairs room above a bar. When I went back to Iowa, it was a similar feeling what I was shooting. It was in an upstairs room on the campus in Iowa and it just had the same feel of, 'Okay, let's see what we can do.' I've got a garage and some old costumes. Let's see what we can make."

Peder Goodman, the game's director of live-action production who studied film and animation at the University Of Iowa, says they wanted to recreate *The 7th Guest* and *11th Hour*'s unique mix of live actors in computer-rendered scenery that rolls out stories to one of five different endings. The game even has its own score composed by Chris Bormend – except for one song from *The 7th Guest*'s soundtrack that was licensed from George 'The Fat Man' Sanger who made the music for *The 7th Guest* and *The 11th Hour*.

> "OKAY, LET'S SEE WHAT WE CAN DO. I'VE GOT A GARAGE AND SOME OLD COSTUMES. LET'S SEE WHAT WE CAN MAKE"
> ROB HIRSCHBOECK

Some of the bigger challenges included keeping track of scenes' storylines and multiple endings and shooting scenes on a green screen, while programmers and designers were still making the oddly lit rooms in the mansion and other locations. Peder says they still wanted to preserve the look of the original game while adding more movement to the controls and the camera. "We were trying to mimic the style of the previous game and not be like, 'Oh, we'll shoot in 4K and try and get the cleanest image," he explains. "It's a more dynamic environment kind of jumping between the mediums."

Rob Hirschboeck says he enjoyed getting to play a diabolical character like Henry Stauf one more time who taunts and teases the minds of his players and his victims. "It's the same guy with the same question: 'What do you want for your soul?' he says. "'What will you give away?' Henry sells his soul and he's absolutely cynical that everyone will."

Hirschboeck's presence not only gives *The 13th Doll* credibility, it also added a cement-grade level of strength and encouragement to a cast of actors who carry the game's story and eerie tone. Ryan says Rob even helped shape the scenes' and story's look and style, and even brought some of the original costume pieces he wore in Trilobyte's games, like the ring he wears on his right hand.

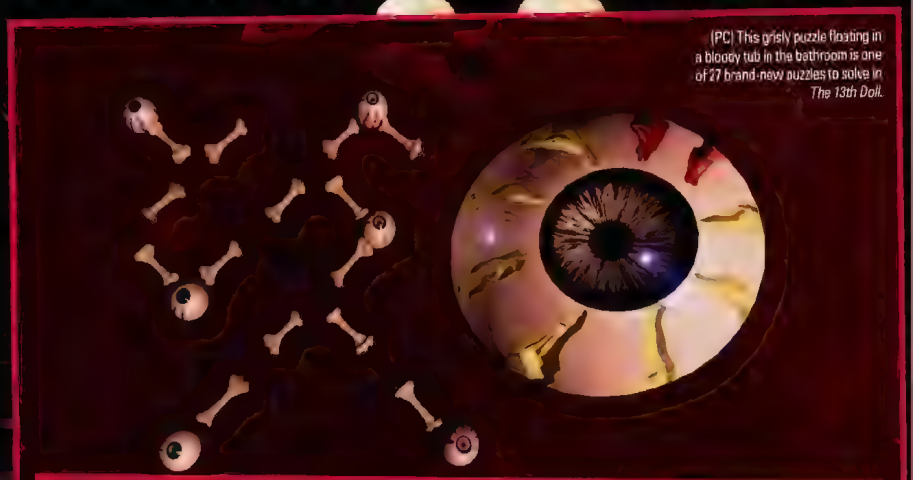
» (PC) Actor Robert Hirschboeck returns to the role of the antagonistic toymaker Henry Stauf (centre) who offers his guests their deepest desires in *The 13th Doll*.

"He really commands the stage," Ryan says. "When he's on, he's Stauf and has this bloodcurdling presence and then we called cut, he's just Rob. He's great to have, and he's amazing to watch. He made filming so much better than it would have been without him. He made the game and made the set and has a presence that's really great. He's also fantastic to work with and just a really great guy."

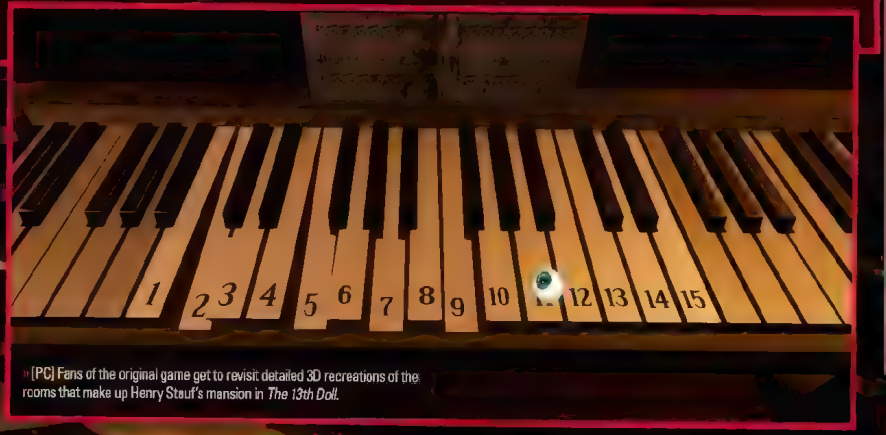
The filming only took two weeks but the post-production would take another four years of development, organisation and implementation. Finally, in the summer of 2019, the team decided to aim for a Halloween release and work as hard as it could to get the game ready. Matt says during the game's final run, he and the rest of the team worked every available hour away from their job, and even 12 hours a day on weekends. "I think we could've just kept pushing it off forever," he says. "So we set the date for Halloween and sat down to get it done."

Upon its release, streams of *The 13th Doll* started popping up online. Ryan says he loved seeing players crack his puzzles and discover their hidden nods to *The 7th Guest*. "That's when it really hit home and felt surreal," he says. "We officially launched at 8pm the night before and I was up until five or six in the morning watching people play it." The game's release not only marks the end of a 17-year journey, it's also a monument to the developers' ambitions and dedication to something that inspired them to pursue their shared dream. "It's a testament to our tenacity on some level but on another level, we're just nuts," Ryan says with a laugh. "We're super proud of it."

Matt says he's proud to see in social media posts and comments how *The 13th Doll* created more fun and frightful childhood memories for a whole new generation of fans. "On Facebook, there's a fan group and people were very nice about it and there are some people who tell the story just like mine when they remember playing *The 7th Guest* with their family as kids, and now they're able to play *The 13th Doll* with their kids," he concludes. "That was a really special moment."



(PC) This grisly puzzle floating in a bloody tub in the bathroom is one of 27 brand-new puzzles to solve in *The 13th Doll*.



» (PC) Fans of the original game get to revisit detailed 3D recreations of the rooms that make up Henry Stauf's mansion in *The 13th Doll*.

HOWIE RUBIN

From Atari in the Seventies to Gottlieb in the Eighties and becoming a Barbie guy in the Nineties, Howie Rubin knows the games business better than most

Words by Paul Drury

When Howie Rubin joined Atari in 1974, he had already accrued over five years' experience in the arcade business. He had worked for Betson Enterprises, a major distributor of coin-op machines, from jukeboxes and pinball tables to *Pong* and *Tank*, and had seen the emerging world of videogames first-hand. He took what he learned to his role as sales manager at Atari, watching the company rise to its pinnacle in the early Eighties. He would go on to set up the videogame division at Gottlieb and enjoyed big hits with *Q*bert* and *MACH 3*, before moving into the consumer market as president of Jaleco USA. "I've worked on lots of good games and lots of failures," he chuckles. "I love to BS about the good old times and strongly believe the best is yet to come."

Howie, you will have heard the sad news that Tim Skelly passed away earlier this year. Weren't you the man who brought him to Gottlieb?
I was, though not as an employee – as a consultant. I hired him to do one game but also to teach the others. In the beginning, there were no schools and no rules. People didn't know how to do stuff, especially the software guys. Everything was done in assembler so they had to write the tools as well as the game.

Did you feel like a manager putting together a rock band and by recruiting a famous lead singer, it would be easier to attract a bass player and drummer?
[Laughs] I don't think I thought of it like that. We needed to get started and the fastest way to do that was hire someone who had done it all already, someone who could both create and teach... and credit to Tim, he did help coach [the others].

Tim insisted on having his name displayed on the screen of his first game for Gottlieb, *Reactor*, the first incidence of this in a coin-op game. Was it hard to strike a deal with him?
I think we fitted each other's purposes. I came to Gottlieb when they were hurting. They were the biggest pinball manufacturer in the world but they were fast asleep. They hadn't kept up to date with technology. Bally and Williams were kicking their butt and Gottlieb was losing market share. They needed a revamp.

So how did you go about making that revamp happen?
I went to Columbia Pictures [the owners] with a plan and asking for the money I needed to set up a videogame division. I had to fight for the budget but once I got it, it made sense to get someone like Tim. I wouldn't call him a rockstar but he was one of the few people back then who had been there and done that... and he was available.

What kind of budget are we talking?
Oh, it was in the millions. One of the things I learned at Atari was if you're going to succeed, you need product of choice to keep the factory going. So obviously, you're going to need to design more than one product at a time... because with any creative product, no one knows if it's going be good or bad until the end. I mean, The Beatles wrote some god-awful songs along with their hits! I felt I needed to staff three or four teams so I always had a product of choice, always had something I could build to keep the factory going. That was the goal.

How did you go about recruiting staff?
I'm not an engineer so I needed to get me an engineer who knew how to pick talent. And that was Ronnie Waxman. Gottlieb had moved my family from California and Ronnie's wife was our realtor. She said she'd find us a house if I'd give her husband a job.

Did that turn out to be a win-win situation?
When I met Ronnie we just clicked. He'd recently quit his job at Bell Labs, and before that he'd

[Arcade] Tekhan's *Bomb Jack* was one of the ideas Howie's KitKorp set up brought to the wor

"We had a very simple rating system for coin-op games. If the cashbox was empty, your baby was ugly"

Howie Rubin

> "At Gottlieb, I wanted to create an Atari-type atmosphere where having fun went hand in hand with a great work ethic"
> Howie Rubin

been in the space industry. He was a brilliant guy and I knew he had the ability to pick the best people, though if you ever heard him interview someone, you'd wonder how the hell anyone would work for him. He could be brutal but he clicked with engineers and programmers.

Gottlieb had been a very famous pinball company since the Thirties. How did the new videogame division fit in with that culture?
We didn't. We set up our own building away from the pinball people and that was a good thing. The culture was very different with us. Gottlieb was a hardcore manufacturing company, very rigid, very orderly. We were hiring a bunch of young guys with no rules. It wasn't about clock punching. If you know anything about programmers, when they're working on something, you basically have to send them home at midnight. They worked longer and harder than the standard pinball design and manufacturing crew but with a totally different culture and they kind of clashed. We played games – we set up a mini arcade and played every game we could. That's how we learned. Our guys came in at weekends to work and play and brought friends and family in to play games. Gottlieb's accountants and HR people wanted to know why we were paying people to play games.

Did you see part of your role as protecting your coders and artists from upper management?
Yes, I did, though mainly because management pissed me off. I knew how it worked from my time at Atari. We had to create an Atari-type atmosphere where having fun went hand in hand with a great work ethic.

» The Gottlieb guys back together in 2018 (left to right) Doc Mack (proprietor of Galloping Ghost arcade), Jeff Lee, Howie Rubin and Warren Davis.

» [Arcade] Howie joined Atari in 1974, just before *Breakout* would take bat-and-ball games to another level.

Let's talk a bit about your time at Atari. How did you end up becoming the company's sales manager?
I got a job with Betson Enterprises in the late Sixties and worked for them for five and a half years. Betson was the distributor for Atari in New Jersey, so I got to work very closely with Atari, testing products on our routes and selling their games to operators. Gene Lipkin, the president of Atari, got in touch and said, 'You really want to come and work for us.' I came out to California to see what they were doing and fell in love with it. This would be 1974.

That must have been an exciting time to join the sales team?
Yeah, *Sprint 2*, *Night Driver* and *Breakout* all came out during my first few years there.

Did you know those games were going to be huge hits?
No [laughs]! Coming from a distribution background, the only thing that mattered was how much money was in the cashbox. It was a very simple rating system in those days. You put a machine out in the field for two weeks and if at the end of that the cashbox was empty, your baby was ugly.

» [Arcade] *Q*bert* was the hit game Gottlieb's new videogame division needed to establish itself as a force in the marketplace.

SELECTED TIMELINE

GAMES

- **NIGHT DRIVER** [1976] ARCADE
- **BREAKOUT** [1976] ARCADE
- **CAVEMAN** [1981] PINBALL
- **Q*BERT** [1982] ARCADE
- **REACTOR** [1982] ARCADE
- **MACH 3** [1983] ARCADE
- **BOMB JACK** [1984] ARCADE
- **CITY CONNECTION** [1985] ARCADE
- **TRACK & FIELD** [1985] NES
- **GRADIUS** [1986] NES
- **ARKANOID** [1986] NES
- **BASES LOADED** [1987] NES
- **MANIAC MANSION** [1988] NES
- **HOOPS** [1988] NES
- **BARBIE FASHION DESIGNER** [1996] PC/MAC

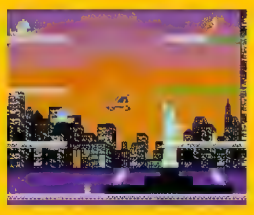
FIVE TO PLAY Five of Howie's hits

Q*BERT

■ The game that put Gottlieb's fledgling videogames division on the map. A collaboration between programmer Warren Davis, graphics artist Jeff Lee and sound man Dave Thiel, with contribut ons from the whole team, ncluding Howie, this remains a true classic from the Golden Age Of Arcades.

MACH 3

■ There was a time when LaserDisc technology seemed to be the future of coin-op videogames, and Gottlieb was one of many companies that produced games using this exciting new medium. *MACH 3* is an entertaining, if brief, blaster, with 'fighter raid' or 'bombing run' modes to add variety.

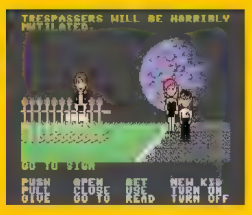


CITY CONNECTION

■ Here's an obscurity from Howie's back catalogue. You take on the role of blue-haired, lovelorn teen Clarice, as she travels the world in her Honda hatchback, in search of her dream boy, with cats and cops in hot pursuit. Part platformer, part driving game, part puzzler, it's worth chasing down.

BASES LOADED

■ This long-running series of baseball games was a b g hit for Jaleco, both in the arcade and on the NES. It's a sport which lends itself well to videogame form and this version, which switches nicely from the face-off between pitcher and batter to a full view of the field, was well-received in its day.



MANIAC MANSION

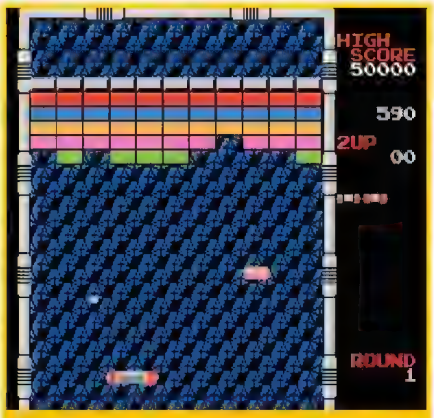
■ Fans of LucasArts point-and-click adventures wi.l know this is where it all started. Ron G lbert and Gary Winnick's weird and witty game features mad scientists, alien invaders and the opportunity to microwave a hamster, an issue which presented Howie with a very real puzzle to solve with Nintendo...

By the late Seventies, Atari was starting to dominate the home market with the VCS. Did you have any role in the consumer division?
I did have something of a crossover role between the consumer and coin-op divisions and, you know, there was some animosity between the two groups. The coin-op guys felt they were being snubbed. They'd started that whole division but they felt everyone was paying attention to the consumer guys because that side of the business was blossoming. It was huge.

Did you get to party in the infamous hot tub?
[Laughs] Atari did party hard. Very hard. I think the coin-op world was unique – great, great people. We were friends with the guys from Bally and Williams, too. We'd cut your heart out to get an order but at the end of the day, we were still friends. We liked each other. And we did party, not just amongst ourselves but with others in the industry.

Even though you were the sales manager, did you get to see Atari games in development?
All the time. Every Friday, Gene Lipkin, president of Atari coin-op, would take a walk through the lab, going from station to station to look at the games in development. He'd take a team of people with him and I'd be one of them when I was out on the west coast. I remember seeing *Missile Command*, *Battlezone* and *Asteroids* like that. We viewed all of them as they were being developed.

It must have been amazing to see games that would go on to be hugely popular when they were still being created.
Yeah and, you know, Gene used to invite customers and distributors along, too. Atari was very open about what it was working on and everyone was entitled to say what they thought about a game. When you're working on something creative, you can get stuck. These walkthroughs, with people making suggestions, could unlock things. That was something I took to Gottlieb.



» [NES] If you've ever enjoyed playing Taito's *Arkanoid* on Nintendo's 8-bit console you have Howie to thank.

Did you get headhunted by Gottlieb?
Well, the president of Gottlieb knew me and he asked me directly if I'd come and set up a videogame division but Gottlieb was owned by Columbia Pictures so I had to be interviewed and approved by Columbia first.

After a few false starts, Gottlieb had its first big hit with *Q*bert*. Can you recall how that game came about?
Everyone tells the story slightly differently. Warren Davis, the programmer, was new and we had recruited Kan Yabumoto, who actually had a doctorate in food chemistry and had been making artificial cheeses for Kraft.

Erm, that's not the typical background for a career in game development.
Kan interviewed with Ron and it turned out he was a real videogame fan. I th nk he was going to do hardware and software as he was capable of both. Back then, you pretty much used a different board set for each game. Ron decided to go to Intel for our chips rather than Texas Instruments that everyone else was using. That was a good decision and it helped us build a more universal board. Kan was fooling around with graphics on the new hardware and someone, I think it was Jeff Lee, an artist we'd recruited, came up with the idea of a pyramid. Ronnie and I were heading off on a business trip to the west coast. We'd seen it before we left and said, 'Yeah, go ahead and screw around with it, Warren,' and by the time we came back, they had this guy with a big nose bouncing on the pyramid.

» [Arcade] *City Connection* was known as *Cruisin' In The States* and is a qu rky game worth investigating.

So that was the first time you saw the little chap who would become *Q*bert*?
Yeah, that was Jeff's character. We could see straight away this was a good idea but it didn't feel like a game yet. Now, Ronnie would often sit behind a programmer, hands on his stomach and cigar in his mouth, watching him work. You'd often worry he was going to fall asleep and set himself on fire. Anyway, one day he casually said to Warren, 'What would happen if the cubes changed colour?' A light went

YOU ASK THE QUESTIONS

Howie answers your coin-op queries

MERMAN: Did you ever suggest a change that made it into a game?

Many. I do remember very much wanting the curse in *Q*bert*. Dave Thiel produced that as the sound guy and as soon as I heard it, I just insisted that was part of the game. I also wanted to put the game out with '@!#?@!' as the title. I thought that would be great marketing. But I tell you, everyone I worked with rebelled! They told me, 'Howie, there's no way we're gonna let you get away with calling it that!'

NORTHWAY: What was it like to sell coin-ops in different parts of the world?

I didn't have to sell internationally. I was more the guy who went into other countries and brought their products back to the USA. I got to travel the world looking for games that we could license and manufacture, and that was fun.

MERMAN: Did you ever feel restricted by Nintendo's policies?

During the 8-bit business, if you walked into a Toys"R"Us, there would be 200 games up against a wall and there's no real way of standing out. I went to my packaging guys and we put a hologram on our cartridge so that the image would change as you walked past it on the shelf. That would make it stand out! But that needed a different printing process and Nintendo wouldn't let me do it. I said we'd pay the extra 25 cents and send it to them but they just said no.

TT: Are there any unreleased games you wish had made it to market?

No, because every coin-op we built, we tested. I thought *Guardian*, the Superman game we did at Gottlieb, was going to be good and it wasn't. I was excited to license The Three Stooges to use in a game but we didn't do a good job in implementing it, so I'm disappointed we built a shitty product.

> "We didn't tell anyone at Columbia – we just bought the fucking parts and built it"
> Howie Rubin

on in Warren's mind and that became the game.

It was certainly a novel idea and really made the gameplay unique.
Yeah, like I remember when Tim Skelly was making *Reactor*... he was building a piece of art and he never had a game. I remember Ronnie and I screaming at him one night, 'Yeah, okay it's beautiful but where the hell's the game? Bring us some gameplay!'

Was there a point when you realised *Q*bert* was going to be the hit game you needed to put Gottlieb's videogame division on the map?
We felt really good about it while it was being developed but once we put it out in an arcade, that's when we knew. After a week, we could see how full the cashbox was. That's when you know you have a hit and that's when you start buying all the parts so you can get building the cabinets!

Did you go to arcades yourself and watch kids playing Gottlieb games out on test?
Yeah and there was an unwritten rule that no employee of Gottlieb could put any money in our games. That would skew the figures!

Another game that did really well for you was *MACH 3*, released in 1983, which used cutting-edge LaserDisc technology.
When we were developing the game we thought it was going to be a hit. We needed something to follow *Q*bert* and we thought *MACH 3* was going to make lots of money. We had huge lead times, so way before the game was finished, I had a conversation with Ronnie and he assured me he'd make the game work... if we were gonna keep the factory running, we needed a hit game, because at this point we'd taken over the pinball design and were told by Columbia [who owned Gottlieb/Mylstar] to get us out of the pinball business, as it was dying.

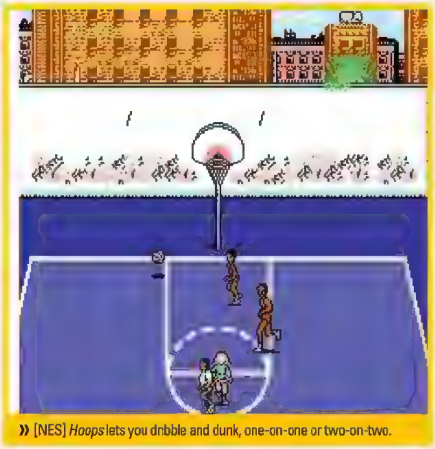
So you had to gamble on *MACH 3* and the LaserDisc technology being a success even before the game was finished?
Yeah, we had to buy parts three or four months ahead of time. Ronnie said it was gonna work so I released 6,000 cabinets. Parts were purchased by the head of manufacturing, an old pinball guy. He said I was nuts and that he wasn't going to process the order. I looked at him and said, 'Fine, start sending your people home because we've got nothing else for them to build.' And with that, he bought the parts. We didn't tell anyone at Columbia – we just bought the fucking parts and built it.

And it was a huge success – at least initially.
We built the first 6,000, sold them all, and that's when I left Gottlieb. They built another 4,000 after that and shouldn't have but that's all with hindsight. At the time, we had no trepidations with the technology. *Dragon's Lair* beat us to market by a week or so and Cinematronics had no idea there would be a problem with LaserDiscs, either. No one knew and Pioneer certainly didn't tell us. The LaserDisc games basically failed because of dirt. If a game was out on the street for a month, dirt would accumulate and the disc would essentially blow up.

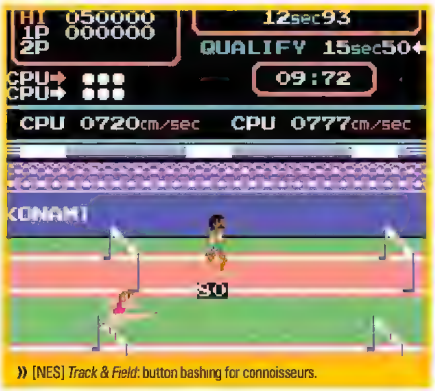
The technology certainly blew up in a lot of companies' faces but by this time, you'd left to set up KitKorp.
The coin-op business was changing. It was starting to decline. Companies were starting to build kits so you would just need a board with the game on it and some cabinet art and you could convert existing machines to a new game. So for half the money, you'd have a new game. I became partners with Joe Robbins and we'd go over to Japan and license products and build kits for them, games like *Bomb Jack* and *City Connection*. It was a pretty good business for a few years until the Segas and Namcos of this world decided to do it for themselves.

You then set up HAR Management and ended up consulting for some big Japanese companies like Konami and Taito.
I was asked by the head of Konami in the States to help them bring their first NES games to market. My job was to help localise them, sort the packaging and arrange distribution across the US. I think I started

» [NES] *Bases Loaded*: watch out for the incredible floating mitt!



» [NES] *Hoops* lets you dribble and dunk, one-on-one or two-on-two.



» [NES] *Track & Field*: button bashing for connoisseurs.

with *Gradius* and *Track & Field*, and then for Taito I did *Arkanoid*. That led me to working for Jaleco and I became the president Of Jaleco USA.

You seem to have had a foot in both the coin-op and home markets at Jaleco. Are they very different from a sales perspective?
They are completely different. In one sense, coin-op is easier to predict. You get a game, you test it, you know if it's taking in money… and that gives you a feeling for how many you should build and then you sell it to 40 distributors in the USA. With the consumer market, you had no clue. You had to become a marketeer, selling to games players and the people at Sears and Toys"R"Us. You would be dealing with reps and they'd be carrying games made by lots of companies. You never really knew if they were being straight with you. In the coin-op business, if you were trying to sell a game to someone, they'd give you a straight answer, yes or no. It was more honest – which was kind of funny because the outside world thought everyone in coin-op was connected to the mafia [laughs].

One of the games you licensed for the NES was *Maniac Mansion*, a game we really love.
I was very involved with that. I saw *Maniac Mansion* as it was being developed and I really liked the theme of the game. I brought some people who worked at Jaleco who I trusted because they had good game sense to see it and they agreed it was something we should license… and we actually got involved with changing some of the gameplay.

Really? What elements?
We were pretty hands-on and worked with the developers around changing some of the graphics and sound but the biggest thing was keeping in the hamster.

You mean the famous scene where you can microwave the hamster?
That was a no-no for Nintendo. The system was that you made the game, Nintendo had to review and approve it and give you permission to bring it to market. You then had to place an order with Nintendo and they would manufacture the cartridges for you. There was a long lead time. So we'd ordered 250,000 NES *Maniac Mansion* cartridges from Nintendo… they were on the water, shipping to us, and I got a call from Nintendo saying we couldn't sell the game. I'm like, 'Huh?' They said they had discovered you could blow up a hamster and they couldn't let us sell the game, even though they had approved it. I rang my lawyer and checked my letter of credit with Nintendo. We worked out that we didn't have to pay them until we took possession of the cartridges. So I rang Nintendo back and said, 'If you say we can't sell the cartridges, I promise you we'll never take possession of the games, so where do you want me to tell the freight company to take them?' I got a call back from Howard Lincoln, the president of Nintendo Of America, who said, 'Fine, you can sell those 250,000 but if you make another run, the hamster has got to come out!'

» [NES] *Gradius* was one of the Japanese titles Howie helped bring to the NES.

Did you ever license games from developers in England?
Oh yeah, England was a great source of products. You had all these bright young people, who had taught themselves to program on a Commodore computer, and I'd travel the country calling on these people and licensing games for the NES. Manchester, Scotland, Wales – anywhere there was a developer! I loved England – the pubs, driving on the wrong side of the road… I had a ball! We licensed *The Last Ninja* and I remember meeting Jez San [founder of Argonaut] to license games from him, and we worked with Jackie Lyons [videogame agent], who was a brilliant woman.

You spent over four decades in the videogame business. What was the secret of your long career?
Well, I have a wife and four kids so I've always had to work for a living! [Laughs]. I think I have a good work ethic. I come to work every day and I'm not afraid to make mistakes. I've worked with people on handshakes… and I've always honoured my side of the deal.

Thanks to Howie, Jeff Lee, Warren Davis and Martyn Carroll for providing images for this feature.

IN A BARBIE WORLD

If you can dream it, you can be it

Given our editor Darran's unashamed love for the *Barbie Horse Adventures* series, we were intrigued to learn that Howie was instrumental in founding Mattel's videogame division back in the Nineties. "Mattel was a huge toy company and they wanted to get into the consumer games business," explains Howie. "My job was to take Mattel products like Barbie and Hot Wheels and turn them into coin-op redemption games and consumer videogames for Nintendo consoles and PC. But we had to work within the 'Barbie' culture, where Barbie is never allowed to lose. How you gonna build a game like that?" Thankfully, *Barbie Fashion Designer* did reach our shelves and Darran still uses it to plan his outfits at weekends. [You said that was our secret, Drury… – Ed].

» [PC] *Barbie Fashion Designer* was developed by Digital Domain, which recently worked on the visual effects for the *Sonic* movie.

Rebelstar: Tactical Command

THE PRICE AIN'T RIGHT

» GAME BOY ADVANCE » 2005 » CODO TECHNOLOGIES

Growing up in a relatively unremarkable mid-sized town like Harlow, it's easy to become convinced that nothing cool ever happens where you live. Save for that time *Gladiators* stars came to open the local branch of Blockbuster Video, even the celebrity sightings are mundane – Glenn Hodd e out for a walk with the family, or Ray Winstone shopping in Tesco. That changed in my late teens when I had a friend whose 'my dad makes videogames' story was actually true. He'd worked with Julian Gollop on games like *Laser Squad*, the *Rebelstar* series and *Magic & Mayhem*. We'd never talked about games much because we were studying politics together, so I didn't learn this until we'd already known each other for a few years, and I wish he'd told me sooner.

You see, around that time I was really enjoying *Rebelstar: Tactical Command*, the anime-style revival of the brand that felt like it had rather more in common with *X-COM* than the original 8-bit games. The game had struggled to gain an audience due to the rise of the DS and soon went on clearance, so I'd picked it up for just £6 brand new. Suddenly that brilliant bargain felt almost like theft. Never mind that Namco had published it, the people that made it were people that I could conceivably bump into in the street, and I'd bought it for a price that probably barely covered manufacturing.

I resolved that the best thing I could do was champion it, and I still like to switch people on to it today. While the *Advance Wars* games are the turn-based strategy titans on the Game Boy Advance, *Rebelstar* is different enough to complement them rather than compete with them. Beside the obvious difference in presentation, success depends far more on properly equipping your squad for the mission at hand, and bringing things down to infantry combat allows you to invest in your individual soldiers much more closely. If you're looking for an engrossing single-player strategy game to occupy your time, this is a strong option that is frequently overlooked.

>> This month we put M2's latest mini console through its paces, but will it live up to expectations? We also take a look at the highly anticipated remake of Final Fantasy VII, and take the new Panzer Dragoon for a test flight

» [PC Engine CoreGrafx Mini] An original copy of *Castlevania* will normally set you back more than this entire system costs!

PC Engine CoreGrafx Mini

THE LITTLER ENGINE THAT COULD

Ever since we got an early chance to try Konami's entry into the retro mini console market, we've known that it was well worth the consideration of any hardcore retro gamer, but now the final unit is here and it packs a few nice surprises. These aren't quite enough to cement the system as the market leader, but they're a welcome bonus on a system that was already looking to be well worth the money, and ensure that it does come very close.

On a hardware level, the PC Engine CoreGrafx Mini is a cute device with some neat touches of authenticity. It's not much smaller than the original console – it's similar in size to the existing mini consoles – but it looks very good and even comes with an expansion port cover. The controller feels right and features the turbo switches that are omitted on the Japanese model, and while the inclusion of two USB ports for controllers isn't quite accurate, it is a welcome improvement – though you will still need a multitap for more than two players. We still can't quite help but feel a little disappointed that the European-exclusive machine isn't based on the original white model of the PC Engine, but what's here is well-produced.

The selection of games on the system is large and serves as an excellent representation of the original console's library, including the best of both HuCard and CD software. There's definitely name value here thanks to the likes of *Castlevania*

INFORMATION

» **RELEASED:** OUT NOW

» **PRICE:** £99.99

» **PUBLISHER:** KONAMI

» **PLAYERS:** 1-5

» [PC Engine CoreGrafx Mini] Games like *Chew Man Fu* are hardly household names, but they're great fun to discover and play.

» [PC Engine CoreGrafx Mini] Of course, there's no getting around the fact a love of shoot-'em-ups goes a long way here.

BRIEF HISTORY

» Having absorbed Hudson Soft, Konami became the custodian of the PC Engine's legacy in 2012. The company went on a retro drive for its 50th anniversary in 2019, releasing various digital compilations and then announcing the PC Engine Mini range at E3, following the current trend for retro plug-and-play consoles started by the Nintendo Classic Mini: NES. Over the months that followed, we learned the hardware would be manufactured by Hori and feature emulation by M2, and the three international systems would include similar software ranges. The system and its accessories are available exclusively via Amazon in all regions

✱PICKS OF THE MONTH

DARRAN

PC Engine Mini

I picked up a system from Japan and have been enjoying all the shmups I can't afford to buy. *The Kung Fu* is good fun, too.

DREW

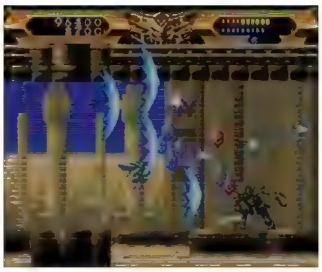
Final Fantasy VII Remake

I'm thoroughly enjoying this reimagining, though everyone looks like a facetuned supermodel – even the damn cats!

» [PC Engine CoreGrafx Mini] The inclusion of the SuperGrafx *Ghouls 'N Ghosts* conversion shows how comprehensive the system is.

» [PC Engine CoreGrafx Mini] The PC Engine version of *Fantasy Zone* has always felt a little ropey...

» [PC Engine CoreGrafx Mini] The new version of *Fantasy Zone* included here is a truly stunning improvement.



» [PC Engine CoreGrafx Mini] There are a number of visual options, but sadly we found the CRT filter to be a bit underwhelming.

and *Bomberman*, as well as arcade conversions such as *R-Type*, *Splatterhouse* and *Ghouls 'N Ghosts*, in addition to rare and expensive games like *Ginga Fukei Densetsu Sapphire*. However, it's fair to say that it won't have the same broad appeal as some of the other devices out there. The first reason for this is that most of the system's original software will be unfamiliar to many players. If you're willing to explore, you'll find that games like *Chew Man Fu*, *Neutopia* and *Bonk's Revenge* are fun, though games like *The Kung Fu* and *Victory Road* are definitely included for historical significance more than modern playability.

Secondly, while the console manages to take in a broad range of genres just through sheer numbers, the system's appeal depends greatly on how much you like shoot-'em-ups. The PC Engine is renowned for its range of shooters and roughly a third of the games on the mini version are shmups, including all of the bonus games. As well as the Caravan version of *Soldier Blade*, new versions of *Fantasy Zone*, *Gradius* and *Salamander* have been included that are closer to their arcade versions. While the improvements to Konami's shooters are relatively subtle as their conversions were already quite good, *Fantasy Zone* is a massive improvement over the original release.

M2 has handled the emulation and system software here, and if you've played the Mega Drive Mini you'll know broadly what to expect here – there's a generally high standard of emulation with some minor sound latency, and a simple and attractive menu system. A variety of visual options are present but, as with the Mega Drive Mini, some of them could stand to be better. On Sega's console, the scaling method used meant that some games exhibited horizontal shimmering in the default 4:3 mode, and the problem is much more widespread on the PC Engine Mini due to the resolutions used in games. A pixel aspect mode does alleviate the problem, though it is of course slightly inaccurate. Additionally, the CRT filter is not too hot thanks to its overly dark look, though the addition of the PC Engine GT mode is a nice touch.

» [PC Engine CoreGrafx Mini] It's a shame that an English version of *Snatcher* couldn't have been created for this console.

The only significant bugbear we have with the PC Engine Mini concerns some of the games included. While it's nice to have a line-up that is broadly the same as what the rest of the world gets, the inclusion of Japanese games with heavy language requirements is not ideal – if you don't read the language, you can write off the likes of *Super Momotaro Dentetsu II*, *Jaseiken Necromancer* and most frustratingly, *Snatcher*. Given that the Japanese system does have a slightly different selection of games, we can't help but feel that some further alterations would have gone a long way. Speaking of the Japanese system, we saw widespread concern over faults with those units, but our European model functioned as expected throughout the test.

The PC Engine CoreGrafx Mini is a wonderfully curated overview of a legendary console, with a packed software line-up covering important games, rare games and most importantly great games. It's fair to note that the console is more expensive than comparable plug-and-play consoles, and we'd have preferred to have seen two controllers in the box. However, that doesn't detract from Konami's impressive achievement. The bonus games and rarities provide enough value to make it worth considering for existing PC Engine fans, but novices will definitely get the most from this, which stands as the first relatively comprehensive and accessible introduction to a system that can be quite difficult to get into. ✱

In a nutshell

Though it has a few flaws, the PC Engine CoreGrafx Mini is highly recommended. Nostalgia be damned – these are great games from a golden age of 2D gaming, and they have never been easier to access.

PICK OF THE MONTH

Final Fantasy VII Remake

» **System:** PS4 » **Buy it from:** Retail, online » **Buy it for:** £49.99

In recent times we've found the word 'remake' has turned into a broad term. You have the typical HD upscalings that are ten-a-penny, like *Shenmue HD*; the graphical reworks that still remain faithful to the original, like *Shadow Of The Colossus*; then you have the full-on reimaginings like the *Resident Evil 2* remake. And now, you have *Final Fantasy VII Remake*, which goes one step beyond by turning the original source material into a multi-game epic.

Many might turn their noses up at Square Enix's plan to remake *Final Fantasy VII* across a undisclosed number of 'episodes', but after seeing the scope on offer from this first instalment, it's clear the developers' vision could not fit into one single product. This debut offering encapsulates the whole Midgar section of the original and turns it into its own 30-hour game; this means fleshing out and elaborating on plot points, while adding entirely new content – and for the most part, it works.

The added plot points mostly centre on the expanded roles of Biggs, Wedge and Jessie, and are welcome additions to the *Final Fantasy VII* canon. What doesn't quite work, however, are the sidequests you can get from various Midgar residents – at their best they are run-of-the-mill and only serve as a way to get a meagre Gil paycheck.

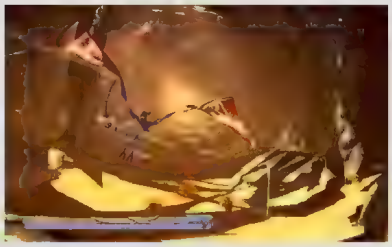
Combat has been completely overhauled in this 2020 revision to be extremely action-heavy – more in the vein of *Crisis Core* and *Kingdom Hearts*. While this might disappoint turn-based ATB enthusiasts, we find it actually fits this reimagining better than any old-school system could, and it is faithfully underpinned by the Materia system that fans know and love, along with a brand-new weapon-upgrading feature.

It's always difficult for a game to live up to obscene levels of hype, however for the most part Square's ambitious remake has nailed it. Not only is it an excellent love letter for fans of the original, it's a fantastic action RPG in its own right. Don't sleep on this reinvented classic.

» Score **90%**

»[PS4] Familiar locations have been reinvented, and the environment design overall is a massive highlight.

»[PS4] One of the added sections is a heist mission to an upper-plate factory.



Panzer Dragoon Remake

» **System:** Switch (tested), PC
» **Buy it from:** Online » **Buy it for:** £22.49

It's been 18 long years since the last *Panzer Dragoon* game, so to play a remake of the first Saturn release is something of a miracle. Sadly, despite nailing certain aspects – both the new and original scores are magnificent – this remaster does fumble a number of key aspects that made the original so compelling. Changing your viewpoint and moving your controller feels sluggish compared to the Saturn game, while input lag and lengthy loading times dull the experience. Sure, the creatures look lovely, but they tend to blend into backgrounds, resulting in needlessly lost energy and points. It's still enjoyable, but the huge incoming patch suggests you'd be better off waiting for that to be implemented before splashing your cash now.

» Score **65%**

Tobu Tobu Girl Deluxe

» **System:** Game Boy Color » **Buy it for:** €4.99
» **Buy it from:** firstpressgames.com

This arcade platformer requires you to get to the top of the screen by bouncing on the heads of enemies, while avoiding spikes and other hazards. Fortunately, you can air dash three times before landing, as well as a limited reserve of boost energy that can be refilled by stomping on enemies – which removes them, forcing you to move. Add a tight time limit and it's a challenging game, but one that's easy to get hooked on as you feel yourself improving, and the cartridge saves progress and high scores so you have an incentive to return. The physical package justifies its price with lavish presentation, including stickers, a full colour manual with story comic, and a collector's coin. If you wish to try it first, a free download is available, too.

» Score **80%**

Home Computers: 100 Icons That Defined A Digital Generation

» **Buy it for:** £24.99
» **Buy it from:** thamesandhudson.com

This collaboration between Alex Wiltshire, photographer John Short and Cambridge's Centre For Computing History makes for a fascinating read. If you want in-depth information on your favourite system, you might end up being disappointed, but we'd argue that you'll still find plenty of interesting facts to read in this exhaustively researched book. Some of the information will be familiar, but what other retro books currently offer insight into the Atari STacy2, Didaktik M, ICL Merlin Tonto and the Memotech MTX512? Wiltshire's passion shines through, while Short's gorgeous photography will make you wish you could reach into the pages, put the systems under your TV and start playing them. Brilliant.

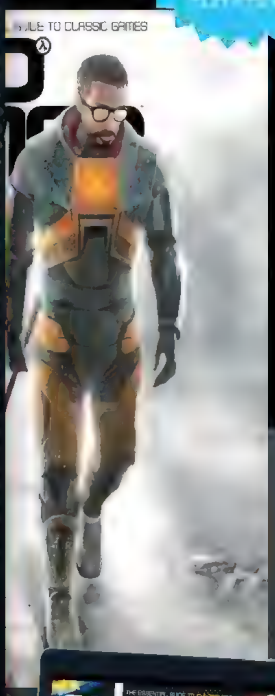
EXCLUSIVE OFFER!

SUBSCRIBE TODAY

AND GET A YEAR'S PRINT OR DIGITAL SUBSCRIPTION FOR HALF PRICE

+FUNKO RETRO MYSTERY MINI !

JUST £8 EVERY 3 MONTHS!



SAVE UP TO 63%

SEE THE FULL OFFER AND **ORDER ONLINE** AT

www.myfavouritemagazines.co.uk/half20g

JUST £6 EVERY 3 MONTHS!

TERMS & CONDITIONS *4 x quarterly payments at the stated price, after which a step up to the standard subscription price. Gift is redeemable against both print and digital subscriptions. Prices and savings are compared to buying full priced print and digital issues. You will receive 13 issues in a year. You can write to us or call us to cancel your subscription within 14 days of purchase. Payment is non refundable after the 14 day cancellation period unless exceptional circumstances apply. Prices correct at point of print and subject to change. UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) or are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). For full terms and conditions please visit bit.ly/magtandc. Offer ends **31/08/2020**

HOMEBREW
The Amstrad Revolution

› [Amstrad CPC] *Vespertino* may redefine CPC racers with a jaw-dropping game that BG Games says will crown the CPC as the best ever platform – with 16-bit performance, full overscan, a 3D CRTC-FX Engine, enhanced video modes and ultra-fast-drawing sprites.

› [Amstrad CPC] Released into the public domain in 1989, *Croco Magneto* fast became a classic homespun title for the CPC.

Is the Amstrad CPC finally emerging as the best 8-bit computer of all time? As homebrew developers continue to push the technological boundaries of Lord Sugar's machines amid massive interest in the scene, the platform is staking a strong claim

Words by David Crookes

You may have a preconception about the Amstrad CPC – the computer often scorned as the grey-cased black sheep of the 8-bit family. But so too did some members of BG Games, the developer of the CPC's jaw-dropping version of *Pinball Dreams*.

It was 2009, and the team – whose origins go back to the Amiga demo scene in 1991 as the Batman Group – had rediscovered its motivation to develop for old platforms, having become inactive some 14 years earlier. The crew began a debate over which 8-bit machine was the most powerful.

"There was a great consensus that the C64 was the winner, but I started coding on an Amstrad CPC which was the computer I'd learn to program when I was a child," recalls team member Alejandro Del Campo Gomez. Two years and three months later, and a dramatic 11-minute demo called *Batman Forever* emerged. It proved to be a watershed moment for the CPC.

Kicking off with a bold claim that commercial software had not taken advantage of more than 6% of the computer's real capacity, the demo boasted a cracking soundtrack which continued to play while sections loaded, as well as 50Hz overscan, stunning scrollers and an abundance of colourful, fluid graphics – including a wonderful rotating Batman symbol.

But there was some criticism. "Some of the feedback proclaimed the Amstrad CPC didn't have the ability to make smooth-scrolling games and that the techniques applied in *Batman Forever* couldn't work in a game," Alejandro says. This set the group another challenge, hence the creation of *Pinball Dreams*.

"We decided it had to run at 50 frames per second and that it would be a good way to show the Amstrad can run games that other 8-bit computers cannot," Alejandro continues. "So we used scrolling techniques to take advantage of the Amstrad CPC's architecture capabilities that were not officially documented."

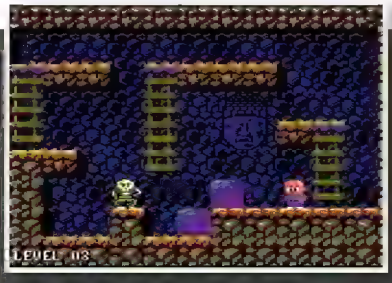
The resulting game is a smooth, spectacular-looking technological triumph with superb physics and responsive controls. It's not a million miles away from the Amiga version and

AMSTRAD ESSENTIALS

STOCK UP ON THE KEY GAMES THAT HAVE HELPED DEFINE THE CPC HOMEBREW SCENE

GALACTIC TOMB

Getting through the three distinctive-looking levels of ESP Soft's smooth scrolling run-and-gun platformer from 2018 may prove to be too short a blast for some gamers. But the exciting variations of the different worlds, combined with the title's gorgeous graphics and superb sound, nevertheless make each jump an absolute joy.



BABA'S PALACE

Much thought has gone into the 100 levels of this intelligent puzzler which makes it no surprise to learn that it won the CPCRetroDev contest in 2017. It involves moving blocks in order to reach a henchman – a simple premise that progressively becomes more difficult, particularly when an extra character is introduced.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **retrogamer@futurenet.com**

it even includes all four tables from the original game.

Yet it's merely one of many homebrew titles created for the 8-bit Amstrad range in recent years. According to the *CPC Power* database, there were 98 titles released in 2019, 103 in 2018, 81 in 2017 and 83 in 2016 – the year when the numbers seemed to jump from a previous average of 40. Not all have set the retro world alight by any means but a good many have, showcasing the great possibilities of Lord Sugar's 8-bit machines.

Some of that potential became apparent around the time the CPC was deemed to be commercially dead. Issue 95 of *Amstrad Action*, dated August 1993, for example, devoted two pages to the much-promised CPC version of *Street Fighter II* – a game that would never see the light of day – but gave an equal amount of space to *Trakers*, a graphically-stunning *Dizzy*-like title involving a tiny droid, self-published by Salford brothers Scott and Gary Kennedy.

At that time there was Elmar Kriegar's fast and furious *Pang* clone *Zap'T'Balls*, the polished public domain game *Croco Magneto* and the game it inspired, *Ball Bearing*, developed by Rob Buckley who also created the Amstrad Plus-only platformer *Fluff*. Other notables included Odiesoft's *Bomberman* clone *Megablasters*, and the sci-fi shoot-'em-up *Masters Of Space*. But it's the more recent crop of games that have really pushed the boundaries of what the CPC can do.

It's possible to trace the huge interest today to 2012 when Easter Egg released a remake of Activision's *R-Type*. "I'd played the game on the original arcade machine and bought the CPC version in 1988 but the game was a poor port from the great Spectrum version by Bob Pape," recalls its developer Richard 'TotO' Gatineau who, together with like-minded friends, spent two years on the project.

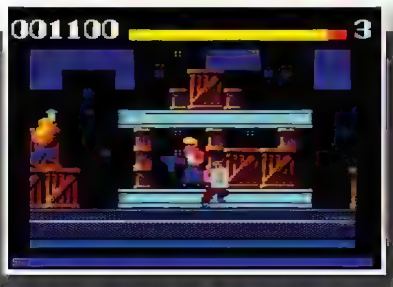
"We looked at what could have been possible if we had a time machine to fix the past," he smiles, pointing to the game's staggering 30MB of code, graphics and audio. Boiled down to 800K of compressed data and auto-unpacked from a custom file system, it was eventually made to fit on a three-inch floppy disk. "It's something like a genie in its little magic lamp," Richard says. And the CPC community's wish was to see more.

Many developments are underpinned by healthy competition and the technical challenge of wanting to go that bit further. There are specialised tools including the development framework CPCtelera launched in 2014 which make it easier to create games in C or assembly languages. Facebook groups and popular forums, such as CPC Wiki, also spur on developers, with fresh ground frequently broken and new tricks emerging that revise the potential of these machines.

Straightforward contests are arguably the main catalyst for the huge interest in the Amstrad homebrew scene, however. Psytronik Software's tricky, 50fps horizontally scrolling shooter *Relentless* was entered into the 16KBs ROM Game Development Competition in 2013 and won, for instance. That same year, an annual contest called CPCRetroDev began and it has since attracted dozens of entries from developers attracted by cash

› [Amstrad CPC] The fun basketball game *Basketcases* came third in the CPCRetroDev contest in 2017.

› Many teams are currently producing games for the Amstrad CPC and they include (clockwise from left): Cédric Quetier (aka CED) and Arnaud Storq (NoRecess), Frédéric Poesy (Golem 13), Alejandro Del Campo Gomez (Rhino), and Richard Gatineau (ToTO).



THE ADVENTURES OF TIMOTHY GUNN

This shooter finished fourth in the CPCRetroDev contest of 2018. Originally created in less than a month by CNGSoft and updated since, this fast-paced action-packed gangster-blaster has a real retro flavour in terms of its look and feel.

THE LOST TREASURE OF CUAUHTEMOC

Similarities with *Rick Dangerous* are obvious, yet that is no bad thing. Developer 4Mhz has made the most of the CPC's chunky Mode 0 to produce a bright and richly coloured platformer spread over 87 stunning screens.

ORION PRIME

It may be 11 years old but the compelling story of this atmospheric adventure makes for a timeless classic. Set on a seemingly deserted space station, it is superbly presented with 3D graphics, cutscenes, an hour of music and some wonderfully thoughtful minigames thrown in for added depth and challenge.

prizes and the opportunity to showcase their game-making skills.

Last year's CPCRetroDev had 35 entries and it was won by Chupigames' *Miss Input*, pipping Osmobit Games' *Ludic Break The Loop*. In 2018, 4Mhz's *Operation Alexandra* placed first followed by RetroBytes' *Jarlac*, TOD Studios' *Legend Of Steel* and the colourful side-scroller *The Adventures Of Timothy Gunn*. The vast puzzler *Baba's Palace* won in 2017 while the Oliver twins judged RetroBytes' *Outlaws* to be the winner in 2016.

Javier Garcia Navarro, a team member of 4Mhz, was certainly proud of *Operation Alexandra*'s victory. Boasting beautiful graphics and named one of the CPC's best games, the game pulled off some lovely tricks. "I'm most proud of *Operation Alexandra*'s interrupts handling," Javier says. "I got to handle all the graphics in the game on the corresponding interrupts to avoid the flickering due to the electron beam."

He believes such tricks are making it seem like the CPC is being pushed harder and harder. "The storm in *Operation Alexandra* couldn't be done with sprites and moving memory zones in just 64 kilobytes," he says, by way of example. "But using the ink-swapping trick that Azicuetano [Rafael Castillo] came up with, there seems to be dozens of sprites moving around the screen. In the end, squeezing more out of a machine that is already working at 100% is about having great ideas that emulate impressive special effects."

Games just keep coming. We saw the arcade clone *Scrambie* last year and the run-and-gun platformer *Galactic Tomb* making its stunning debut at RetroMadrid in 2018. The scene has enjoyed *The World War Simulator Part 2*, *Robbie Strikes Back* and *Dead On Time*. Most are being made in Spain and France, countries which had a strong following for Alan Sugar's computer, and they're excelling not only graphically but sonically, too.

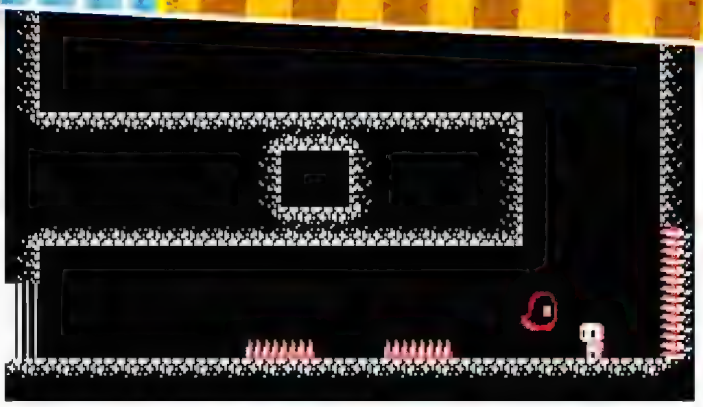
In fact, developers try hard to get the most out of the CPC's audio, using tools such as soundtracker STarKos on the CPC, as well as Arkos Tracker 2 on PC, Linux and Mac. "To be honest, the CPC's sound processor is far from being state-of-the-art, especially compared to what the C64 can do," says STarKos creator Julien Névo. "But I found it very expressive nonetheless, and there are many tricks one can use to get new and interesting sounds."

Julien worked on the point-and-click adventure *Orion Prime* in 2009 and *Imperial Mahjong* in 2016. As a programmer and musician, he feels the computer offers him a wide range of creative possibilities. "In *Orion Prime*, we were able to have music along with loading the data on disk," he says. "It had been done before but it always resulted in very slow loading – but not this time. We also managed to get a unique resolution – 320x200 with 16 colours – in *Imperial Mahjong* but that was a nightmare to code. Never again."

More recently, there has been a greater number of homebrew titles made for the Amstrad Plus machines and GX4000 console launched in 1990. Arnaud 'NoRecess' Storq has been remaking *Sonic The Hedgehog* for these machines based on visuals adapted from the game's Green Hill Zone level. It intends to be a new 'episode' for fans with fresh levels and a challenging bonus zone.

"The GX4000 was a powerful console but it was never exploited during its commercial life which left many under the impression that it was a poor 8-bit platform while it was at least as good as the Master System if not better," Arnaud says. "*SonicGX* features multidirectional scrolling at full 50fps using a 192x256 resolution and it makes extensive use of the 4,096 colours and hardware sprites while relying on the DMA channels for audio."

Another promising remake is *Ghosts 'N Goblins*, created by Frédéric Poesy, aka Golem13. Frédéric took his CPC out of its box to show his children in



» [Amstrad CPC] The beautifully minimalist *Miss Input* was a deserved winner of the CPCRetroDev 2019, held annually at the University Of Alicante.

» [Amstrad CPC] *Profanation 2: Escape From Abu Simbel* is one of many games to get a physical as well as digital release.

» [Amstrad CPC] *Jarlac* is a great looking flick-screen platformer with a balanced level of difficulty.

» [Amstrad CPC] A remade version of *Ghosts 'N Goblins* is set to be released for the Amstrad 6128 Plus.

2016 but felt a burning-hot desire to code again. Obsessed with *Ghosts 'N Goblins* as a kid, he says, "I chose to remake the game on an Amstrad 6128 Plus because I didn't want to restrict myself to the weakest machine." As such he's written a fast sprite update engine to animate all of the 16 hardware sprites at the same time. "I'm particularly proud of my display routines and the RAM/ROM handling," he adds. "The whole game works with interrupts enabled whatever the memory configuration and the code executed, whatever the Z80 registers used. It makes the game display very clean, stable and flexible."

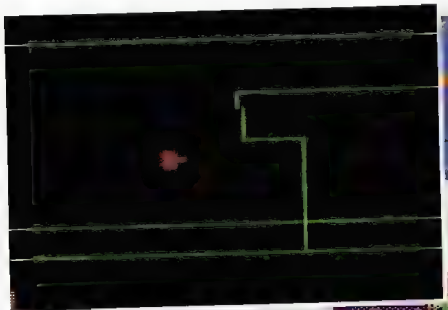
The development makes use of homebrew hardware including the M4 Wi-Fi expansion card that allows CPC games written on a PC or Mac to be quickly transferred to the original computers. Frédéric also uses the C4CPC cartridge replacement for the Plus computers and GX4000 console, as well as the PlayCity CPC expansion which includes six audio channels and raster line interrupt support. He's deliberately using 128K, too, since he believes the additional 64K was vastly neglected back in the day, except for preloading data.

It means his game won't run on a CPC 464, 464 Plus or GX4000, but he says, "From the beginning, I looked to actively use all of the capabilities and resources available on a 6128 Plus, not only the 128K but the 512K of ROM offered by the cartridge port. As this memory can be used to save machine time by unrolling generated code – compiled sprites, for example – it becomes possible to obtain very good results on arcade games."

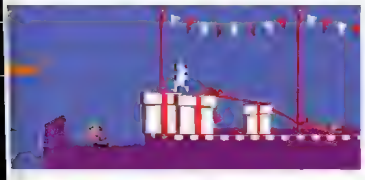
Other games currently seeking to push the boundaries include *Alcon 2020*, an update of the vertically scrolling shooter that's also known as *Slap Fight*. "The conversion was started by Abalore, a talented Spanish coder," Richard says. "The idea is to show the true potential of the CPC by producing as close to a perfect arcade port as possible – something usually only possible on 16-bit systems."

Alcon 2020 uses infinite smooth vertical tile map scrolling, sprites and bullets without any speed drawback or size limitations compared to other 8-bit systems. Meanwhile, BG Games' forthcoming racer, *Vespertino*, is looking to create a pseudo 3D engine. "The development is still in an initial phase and once we have a smooth road engine, a lot of frames will be needed for the sprite animations to be smooth too otherwise you wouldn't appreciate the 25fps," Alejandro says.

The appreciation for the Amstrad CPC continues. "The CPC is like an 8-bit PC," Richard says. "Its potential is only limited by the designer's ideas and the coder's skill with a powerful CPU and CRTC." But why weren't many of these tricks used the first time around? "We believe that not documenting the CPC well was one of Amstrad's biggest mistakes," Alejandro says. "But it has allowed the machine to become a much richer and surprising story than that of other platforms. It's also quite possible that Alan Sugar's own team was unaware of the possibilities of the hardware they had designed." ★



» [Amstrad CPC] Albertoven's *Vector Vaults* is a compelling game with a distinct retro style.



» [Amstrad CPC] Platformer *Cris Odd Prelude* makes use of horizontal overscan and includes smooth animation of the lead character.

» [Amstrad CPC] *Pang* clone *Zap'T'Balls* was offered to Ocean Software as a *Pang* conversion for non-Plus CPC computers.

» [Amstrad CPC] *Outlaws* won CPCRetroDev 2016 and received praise for its music. Go to cpcretrodev.byterealms.com/en to download all of the contest's entries, and also pop over to the dedicated Amstrad CPC homebrew website homebrew.amstradtoday.com.

PUSHING THE LIMITS

These Amstrad homebrew games are technical marvels

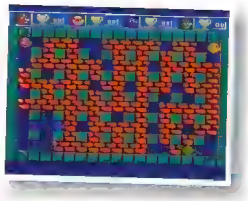
PINBALL DREAMS

This unofficial, authentic conversion of Digital Illusions' commercial Amiga game has proven the CPC can more than pull off smooth vertical scrolling when expertly programmed. The four pinball tables and realistic ball physics represent a true triumph for BG Games and the title has arguably raised the bar for 8-bit gaming.

R-TYPE

The original CPC port of *R-Type* was completed in just 21 days and it certainly showed, with developer Keith Goodyer long ruing the lack of time he had. Easter Egg's 128K version has not only righted a wrong, it has built on the original's foundations with extra features not included with the arcade version.

MEGABLASTERS

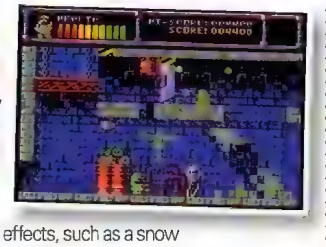


Released in 1994 when the commercial CPC scene was dead, few Amstrad users got to experience this 128K-only *Super Bomberman* clone the first time around. But with 900K of compressed data and spread over four sides of a three-inch floppy disk, it was not only ambitious in scope but, thanks to full overscan, it's technically impressive, too.

THE SHADOWS OF SERGOTH

Homebrew first-person grid-based dungeon crawlers are a rarity but this game's 46,000 lines of assembly code has not gone to waste. Spread over 16 levels and boasting speedy, fluid movement, it provides many hours of intricate gameplay in a game that some would say pushes the CPC towards 16-bit territory.

OPERATION ALEXANDRA



The winner of the 2018 CPCRetroDev fits into just 64K, yet the memory constraints has done little to hamper the meticulous design of this shooter. It takes a strategic approach to each screen and uses some amazing visual effects, such as a snow storm that's achieved through successive palette changes at different speeds.

COLLECTOR'S CORNER

READERS TAKE US THROUGH THE RETRO KEYHOLE

ALESTE 2

"I am a fan of shoot-'em-ups, and this is a fast-paced title, with wonderful FM sound that shows what the system can do in the right hands."

PAID: $120 USD

SPACE MANBOW SOUNDTRACK CD

"A friend from Japan sent me this wonderful soundtrack of the FM tracks from *Space Manbow*."

PAID: NOTHING (VALUE: PRICELESS)

BIO

NAME:
Tony Cruise

LOCATION:
Hobart, Tasmania (Australia)

FAVOURITE SYSTEMS:
Spectravideo SVI-738
X'Press MSX
PC Engine

FAVOURITE GAME:
Time Pilot

THE JOY OF MSX

Tony Cruise shows off his impressive collection

We've heard all sorts of interesting collecting stories since starting this series, but Tony Cruise's is one of our favourites, as it all stems from a kind gesture. "A bit over 15 years ago, my childhood mate dropped around to say goodbye before moving to a different state in Australia," he tells us. "He left me a box containing the Atari 2600 and games we both used to play together as kids." His interest suitably invigorated, Tony dug out his old gaming systems that were packed up in storage and began searching local markets, before discovering four loose MSX cartridges on eBay.

Before we talk to Tony more about his collection, it's worth noting that he was a developer for both the Spectravideo and MSX back in the day, so he's always looking for his old games. "Unfortunately, back in the day when I moved onto other things, I shipped all of my original 'master tapes' off to a company in western Australia," he explains. "Also, I have not been able to read my original Spectravideo floppy discs, although I have not given up hope. I do have more of my titles for the MSX machines, though. I did have some of my tapes in storage, and have since found a lot of tapes from a seller, and very recently a box from the estate of another friend. My other local friends know I am after them, and have dropped around several lots over the last few years."

Tony's main interest is the MSX, and he has an impressive number of games for it. "As much as I loved the original Spectravideo machines I was disappointed with the lack of software titles that were released," he says. "When the MSX standard was announced based on the original Spectravideo design, but supported by dozens of publishers this time [including] Konami and Sony, I upgraded to a SVI-728 on launch and immediately set about converting the titles I had written so far." That led to a love for the various MSX models that remains to this day.

It would appear that Tony isn't the only collector to have a soft spot for the MSX, as the range appears to be a lot more collectible than it was when Tony started. "Prices of MSX titles have increased a lot over the years, but there are still bargains to be had in the European and UK market for Konami and Sony titles," Tony points out. "Both producers wrote games that take advantage of the systems' capabilities and their titles were released on cartridge. So games like *Nemesis*, *Yie Ar Kung-Fu*, *Knightmare*, *Goonies*, *Lode Runner* and *Choplifter* are highly recommended."

Got an impressive collection of your own? Contact us at:

BOSCONIAN ARCADE PCB

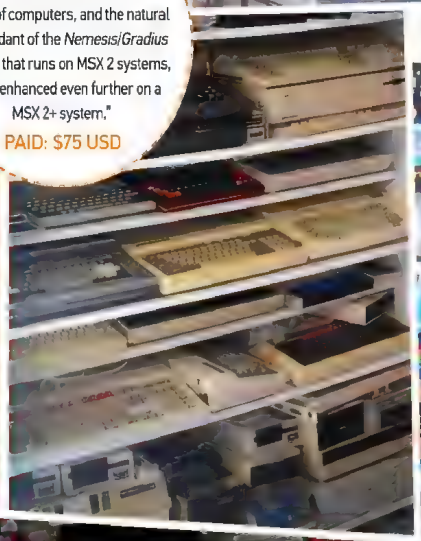
"A game I loved back in the arcades, so much so that I got my father to hire a machine for my 18th birthday party. Purchased from a seller in Melbourne for only $100, currently running a Nintendo *Space Firebird* cabinet!"

PAID: $100 USD

SPACE MANBOW

"Konami's last title for the MSX range of computers, and the natural descendant of the *Nemesis/Gradius* games, that runs on MSX 2 systems, but is enhanced even further on a MSX 2+ system."

PAID: $75 USD



Although we've focused on the MSX, Tony's 3,500-plus game collection covers all eras, from systems like the PS2 to various handhelds, but the 8-bit generation remains one of his favourites and there's a very good reason why. "Games of that time were pick-up-and-play, and designed to not have an ending, just get harder and harder until the player loses," he tells us. "I find myself buying the same game on multiple systems to see what that system could do compared with the arcade original."

While Tony admits that the prices of games is certainly going up for some systems, he's adamant that you can still build a decent collection with a little care and attention. "Pick a system you like and focus on it," he concludes. "Bundles are a nice way to increase the size of your collection, but sometimes it's better to only get one or two titles at a time, play them and enjoy them before looking for more."

JEWEL IN THE CROWN

COPIES OF MY ORIGINAL GAMES FOR THE MSX AND SPECTRAVIDEO

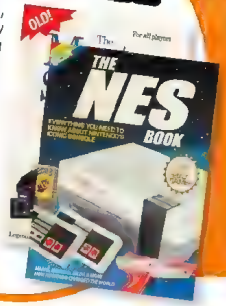
PAID: NOTHING

MAILBAG

HAVE YOUR SAY... SEND US A LETTER OR MAKE YOURSELF HEARD ON THE ONLINE FORUM – WWW.RETROGAMER.NET

WIN!

Every month, one lucky writer-in will receive a spanking copy of either our NES/Master System or SNES/Mega Drive books



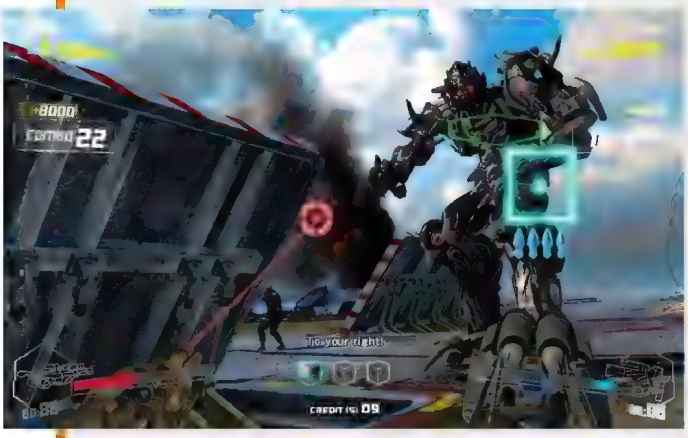
STAR LETTER

CURRENT COIN-OP CLASSICS?

Hi **Retro Gamer**,
I know that the golden age of arcades is behind us, but I still think that there are some games worth playing in the modern arcade – such as the *Jurassic Park* shooter, the *Halo* lightgun shooter or the VR *Mario Kart* game, and that's not to mention any of the great modern Japanese arcade games that rarely make it to the west. Do you think, in time, some of these arcade games will be considered classics, and why do you think it is that they don't receive home ports? I can only hope for a home port of *Mario Kart VR* one day.
Kind regards,
Chris Greenland

We're still big fans of arcade games, and we pop down to Bournemouth pier every so often to play games like *House Of The Dead: Scarlet Dawn* and *Time Crisis 5*. Those two should attract attention in years to come just because of their heritage, but beyond that, we've enjoyed music games like *Groove Coaster* and the latest versions of *Jubeat* and *Sound Voltex*, as well as crazy attractions like Namco's dome-screened air combat game *Mach Storm*. And whenever we get together with friends at Las Vegas in London, a *Bishi Bashi* session is mandatory.

The problem they face in achieving recognition is that they earn little press coverage, and relatively few people will play them in their prime. Ports would help with that, but they'd require huge work for a full-price release. Worse yet, many of today's arcade games really rely on their cabinets and unique control schemes – particularly the music games, but gun games are a struggle due to the decline of motion controls. But even arcade racers that would work on a standard pad, like typical racing games, suffer because the style is out of fashion.



» Arcade New games like *Transformers: Shadow Rising* gain little attention from much of the gaming press, despite being great releases.

RAGE READER

Hi guys,
Just a thought with the upcoming release of *Streets Of Rage 4*, maybe you could do a history of the *Streets Of Rage* series or even a section on the genre. Issue 206 just arrived, thank you. What with the madness going on, to still receive a copy was amazing.
Dave Lucas

Hi Dave, glad you're enjoying issue 206. Frustratingly, *Streets Of Rage 4* will be out by the time you read this – something that was only announced once we were well into production on this issue, and too far along to change our plans. However, you can read about the making of the original in issue 132, and the sequel was the subject of issue 159's cover feature. We also did a Bluffer's Guide To Scrolling Beat-'em-ups in RG 128. As for the new game, expect a review soon.

NO, THANK *YOU*

Hi all at **RG**,
Just wanted to say a big thank you to you all for still getting a fantastic issue out in difficult circumstances. My issue of **Retro Gamer** came today. Funny thing is I am playing *Half-Life 2* on the PlayStation 3, from *The Orange Box*. At 45, I love my retro games and still purchase games for my old Mega Drive and PlayStation alongside my PS4. Keep safe and keep up the good work.
Alex Halfpenny

SERIOUSLY GUYS

Hey there,
I've just received my latest issue through the post. I've been subscribing for over three years now, and whilst every edition puts a smile on my face when it arrives, this one felt even more special. I just wanted to say thank you.

Working in advertising, I know just how hard it is to meet deadlines and produce work given the current climate. So I fully appreciate that you're going above and beyond to get the magazine out.

And given the unprecedented events occurring right now, it means so much for a slice of normalcy to arrive, freshly printed and ready to read. You can almost forget about everything for an hour. And that to me, and to others, regardless of the cost of subscription, is priceless. Thanks again.

Stay safe. Stay well.
Gary Arnold

WE'RE BLUSHING

Dear guys,
I have said many times what an amazing magazine **Retro Gamer** is, but all I ask is that none of you put yourself or your families health at risk by making more editions, I'm sure our devoted readership can manage a few missed issues and be back to normal when all this ends.

Be safe and take care, and many thanks for issue 206.
Kelvin Courtenay

» [PC] Although *Streets Of Rage 4* hasn't made this issue, we've written extensively on the series and genre in the past.

CONTACT US

Snail Mail: Retro Gamer
Future Publishing, Richmond House,
33 Richmond Hill, Bournemouth,
Dorset, BH2 6EZ

Email: retrogamer@futurenet.com

Thank you Alex, Gary, Kelvin and everyone that has been in touch by email and social media after issue 206 came out. We're glad the magazine is continuing to entertain you during one of the most difficult times any of us have experienced, though that screenshot of empty shelves in the *Disaster Report* feature must have hit closer to home than we'd intended when the feature was written.

To reassure anyone that is worried about our safety, the office team has been staying safe and started working from home before the official UK lockdown order went into effect. It has definitely required a period of adjustment and there have been some difficulties, such as not being able to get post from the office – bear that one in mind if you're thinking of sending us any letters by mail. But things are going surprisingly smoothly in terms of production, and we're staying in touch with daily video chats. Having said that, some of our contributors have unfortunately been affected by COVID-19, some quite severely, so we'd be grateful if you could spare a thought for them and their families too.

We'd also like to thank everyone who *has* had to go out to do essential work – whether you've been restocking supermarkets, delivering the post or treating patients in hospital, we have been reliant on you all.

» [Xbox 360] It's nice to see it at every one enjoyed issue 206, featuring *Half-Life*'s creatively cheery alien invasions

TRANSATLANTIC TRADE

Hi **RG**,

Is there any plan to localise the magazine again in the States? When I was in college over a decade ago, I came across your magazine at a chain book store (Vromans, I believe) and fell in love with it. I have access to your magazine via Apple's News subscription service but, like collecting games, I would love to have physical copies. In any case, I thank you for providing an incredible magazine and I look forward to every issue.

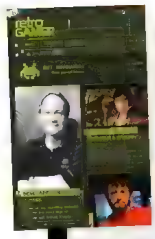
Will O'Doherty

Thanks for the kind words, Will. Customers in the USA can usually find the magazine via Barnes & Noble stores, or you can order subscriptions and single issues over at myfavouritemagazines.co.uk – though please do check the website first for details on international deliveries, as the pandemic is affecting orders.

DISCUSSED THIS MONTH

Tiger King

With no prospect of evenings out for the time being, we've all been watching this Netflix documentary about big cat owners, just like seemingly everybody else. It's utterly enthralling – every time you think it can't possibly escalate any further, the narrative shifts to another bizarre revelation that takes things to another level entirely. Given that the second of the seven episodes includes an incident where someone actually loses a limb, that's quite an achievement. Darran managed to do the whole series in a single day, whereas Nick has been taking things at a more leisurely pace with the family.



Your say

Every month, Retro Gamer asks a question on social media and prints the best replies. This month we wanted to know...

What are you playing during lockdown?

» [Nioh 2] Time to battle it out with Sony's booting problems to date

Sam Allen
Being careful that *World Of Warcraft* does not take over my life! If I could still have a classic, it would be *Unreal Tournament*.

Jay McCreary
I've turned to *Fallout 3*. Picking up some tips for the future!

Ryan Williams
I'm currently working my way through *ST Format*, playing a couple of games from each issue. I'm the coolest. [That is cool - Ed]

Cafeman
Dug out my Saturn and *Panzer Dragoon*, *Panzer Dragoon Zwei*, and also the Williams disc – mostly getting higher scores on *Bubbles* and *Robotron*. And *Shinobi Legions*.

Matty Aspin
Playing *Wave Race 64* on my HDTV after digging it out of the garage after 20 years.

Jamie Martin
Just finished *Doom Eternal* last week. At the moment *Animal Crossing* is taking up my free time.

ely
I'm playing *NBA Hangtime* on MAME because I read that *NBA Jam* book. As a challenge, I fancied having a go at beating all the teams in the game, I'm halfway through at the moment.

Marshal Carper
I'm playing *Baldur's Gate* for the first time in ages. It's nice to be back in that world.

Matthew Taylor
Just finished *The Mummy Demastered*, an awesome *Super Metroid* clone, and very near the end of *Sparklite*, a *Zelda*-inspired roguelike, both on Switch.

RetroBob
With my nearly three-year-old not in nursery I've less time for games as I'm zonked at night – though I've started to introduce him to games in small doses with *Mario* and *Sonic*, so he now asks me to play pretty much daily!

retro GAMER

Future PLC Richmond House, 33 Richmond Hill, Bournemouth, Dorset, BH2 6EZ

Editorial
Editor **Darran 'Cherry' Jones**
darran.jones@futurenet.com
01202 586237
Art Editor **Andy 'Apple' Salter**
Production Editor **Drew 'Strawberry' Sleep**
Features Editor **Nick 'Orange' Thorpe**
Photographer **Phil 'Melon' Barker**
Group Art Director **Woz 'Bell' Brown**
Editorial Director **Tony 'Key' Mott**

Contributors
Writing Kerry Brunskill, David Crookes, Paul Drury, Danny Gallagher, Iain Lee, Paul Rose, Graeme Mason, Robert Zak

Cover Image
Pac-Man™©BANDAI NAMCO Entertainment Inc.

Advertising
Media packs are available on request
Commercial Director **Clare Dove**
clare.dove@futurenet.com
Advertising Director **Tom Parkinson**
tom.parkinson@futurenet.com
Account Director **Kevin Stoddart**
kevin.stoddart@futurenet.com

International
Retro Gamer is available for licensing.
Contact the International department to discuss partnership opportunities.
International Licensing Director **Matt Ellis**
matt.ellis@futurenet.com

Subscriptions
Email enquiries **contact@myfavouritemagazines.co.uk**
UK orderline & enquiries **0344 848 2852**
Overseas order line and enquiries **+44 (0) 344 848 2852**
Online orders & enquiries **www.myfavouritemagazines.co.uk**
Magazines Marketing Director **Sharon Todd**

Circulation
Head of Newstrade **Tim Mathers**

Production
Head of Production **Mark Constance**
Production Project Manager **Clare Scott**
Advertising Production Manager **Joanne Crosby**
Digital Editions Controller **Jason Hudson**
Production Controller **Vivienne Calvert**

Management
Acting Managing Director Of Content **Aaron Asadi**
Commercial Finance Director **Dan Jotcham**
Brand Director, Games **Matthew Pierce**
Global Art Director **Rodney Dive**

Printed by
William Gibbons & Sons Ltd, 26 Planetary Road, Willenhall, WV13 3XT

Distributed by Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU www.marketforce.co.uk Tel: 0203 787 9060

ISSN 1742-3155

We are committed to only using magazine paper which is derived from responsibly managed, certified forestry and chlorine-free manufacture. The paper in this magazine was sourced and produced from sustainable managed forests, conforming to strict environmental and socio-economic standards. The manufacturing paper mill holds full FSC (Forest Stewardship Council) certification and accreditation

All contents © 2020 Future Publishing Limited or published under licence. All rights reserved. No part of this magazine may be used, stored, transmitted or reproduced in any way without the prior written permission of the publisher. Future Publishing Limited (company number 2008885) is registered in England and Wales. Registered office: Quay House, The Ambury, Bath BA1 1UA. All information contained in this publication is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. You are advised to contact manufacturers and retailers directly with regard to the price of products/services referred to in this publication. Apps and websites mentioned in this publication are not under our control. We are not responsible for their contents or any other changes or updates to them. This magazine is fully independent and not affiliated in any way with the companies mentioned herein.

If you submit material to us, you warrant that you own the material and/or have the necessary rights/permissions to supply the material and you automatically grant Future and its licensees a licence to publish your submission in whole or in part in any/all issues and/or editions of publications, in any format published worldwide and on associated websites, social media channels and associated products. Any material you submit is sent at your own risk and, although every care is taken, neither Future nor its employees, agents, subcontractors or licensees shall be liable for loss or damage. We assume all unsolicited material is for publication unless otherwise stated, and reserve the right to edit, amend, adapt all submissions.

FUTURE
Connectors. Creators. Experience Makers.

Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR)
www.futureplc.com

Chief executive **Zillah Byng-Thorne**
Non-executive chairman **Richard Huntingford**
Chief financial officer **Penny Ladkin-Brand**

Tel +44 (0)1225 442 244

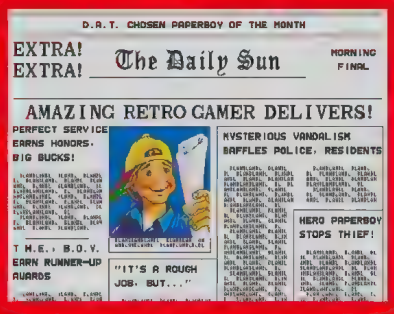
ipso Regulated

Widely Recycled

FOR PEOPLE WHO ♥ RETRO GAMES

SIGN UP TO THE retro* GAMER NEWSLETTER TODAY!

RECEIVE ALL THIS MORE!


D.A.T. CHOSEN PAPERBOY OF THE MONTH

EXTRA! EXTRA! The Daily Sun MORNING FINAL

AMAZING RETRO GAMER DELIVERS!

PERFECT SERVICE EARNS HONORS, BIG BUCKS!

MYSTERIOUS VANDALISM BAFFLES POLICE, RESIDENTS

HERO PAPERBOY STOPS THIEF!

T.H.E. B.O.Y. EARN RUNNER-UP AWARDS

"IT'S A ROUGH JOB, BUT..."

ALL THE LATEST **RETRO NEWS**

INTERACT WITH THE RETRO GAMER TEAM

FANTASTIC NEW SUBSCRIPTION **OFFERS**

SIGN UP NOW!

www.bit.ly/retronewsletter

>>LOAD 208

nextmonth

ON SALE 11 JUNE 2020

THE MAKING OF

PLOK™

WE GO BEHIND THE SCENES OF SOFTWARE CREATIONS' BRILLIANTLY ECCENTRIC PLATFORMER

AND MUCH MORE, INCLUDING...

OutRunners, Spy Vs Spy III: Arctic Antics, Spider-Man, The History Of Destruction Derby, Ocean France, The Legacy Of Myst, ColecoVision Controller, N-Gage, Formula One, Yoshi's Story

ENDGAME

BASKETBALL NIGHTMARE

» Some games leave you with more questions than answers even when you've finished them, and this late Eighties Master System sports game is one of them. Originally intended as a regular basketball game, this somehow became a tale of a high school sports team against mythical creatures. But did Sega adjust the gameplay to reflect this new theme in any way? Let's skip to the ending and find out

01

» Don't be silly, of course not. After all, when you've got a team of werewolf basketball players, what are they going to do? Bite off your limbs? Nope, they'll just abide by the rules and perform slightly flashy but otherwise regular dunks.

02

» But then, at least we recognise werewolves. Kappas aren't at all well-known in most of the world, originating as they do in Japanese mythology. Were the developers unaware that this game wasn't going to be released in Japan?

03

» The hitotsume-kozo at least have the excuse of not having any powers to speak of. That said, you'd think that only having one eye might be a disadvantage when playing basketball, due to issues with depth perception and all.

04

» It's kind of amazing, really. Think of all the crazy ways vampires could cheat at basketball – flying, murdering the human kids, all that stuff. Sega chose to implement none of this, leaving the 'basketball with superhuman abilities' market totally open for *NBA Jam* to corner four years later.

05

» There is one saving grace in all of this. *Dead Or Alive 2*'s final boss, Tengu, can be a rather annoying bastard like most fighting game final bosses. In this game, you'll face a team of tengu, but they're not nearly as irritating as that guy is. See? Every cloud has a silver lining.

START
SUPER ARCADE
RACING
• 16-bit style pixel graphics
• Original synthwave soundtrack with 30 + songs
• In-depth car customisation and upgrades
• Single player story with 60 + levels
• Competitive online multiplayer
• Local multiplayer with up to 4-players split screen (PC only)
Download it NOW!
Available on Steam,
Apple App Store and Google Play Store
outofthebit
STEAM
GET IT ON
Google Play
Download on the
App Store

WANTED
SECOND HAND
win prizes
facebook

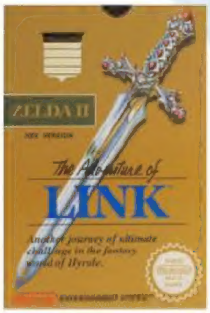
CHILLOUT GAMES

where gamers collect

www.chilloutgames.co.uk/Sell

Trustpilot

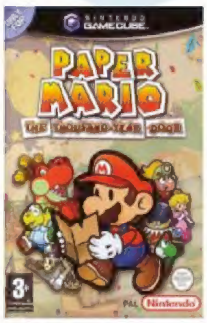
We Pay £££ For Your Games:



£53.77

£25.44

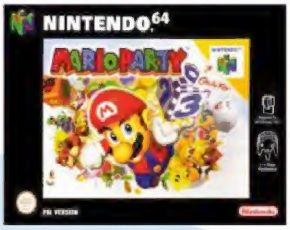
£14.13



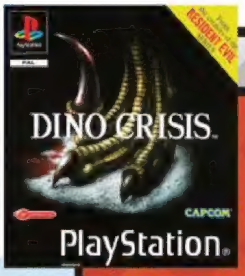
£43.35

£14.04

£26.29



£42.60



£14.25

£61.45

£9.74

£7.08

£11.16

FREE PARCELFORCE DOORSTEP COLLECTION

FAST CONTACTLESS PAYMENT

Prices valid 14/04/20 and subject to change daily. Prices are for PayPal (Shop Credit add 12% more).
Chillout Games and retro-games.co.uk are trading names of Chillout Games Ltd.
Full terms & conditions can be found at at www.chilloutgames.co.uk